OHIO WORKFORCE AREA 13

BUSINESS PLAN

Draft for Public Comment

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WORKFORCE INVESTMENT AREA 13 2005 BUSINESS PLAN

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Area 13 Business Plan

I. Executive Summary

This Business Plan describes assets and challenges in Area 13's workforce development systems that include system gaps. The plan identifies opportunities for strengthening the system, which are incorporated in its projected goals and strategies.

Assets

- Hamilton County is the economic hub of the Cincinnati PMSA region.
- Area 13 has a wide array of education and training resources for both youth and adults, making the region largely self-sufficient in providing training for its workforce
- Entities providing workforce development services are numerous. Required partners as well as other community based organizations are making strides in coordinating their services with the One Stop. The One Stop has a large new facility allowing co-location of many services and facilitating further service integration.
- WIA youth services have been redesigned to improve accountability and timeliness and quality of services.
- Operation of the One Stop and WIA services has been rebid, with plans to make them more demand-driven, customer focused, accountable, and cost effective.
- Several economic development entities are operating in the region.

Challenges

- Hamilton County's jobs declined by 6 percent between October 2000 and October 2004. The greatest loss was in the manufacturing sector, traditionally a source of high well paid jobs for people without high school diplomas.
- Hamilton County's population has declined by 5% since 2000, with most people relocating in adjacent counties.
- Business is still finding lack of basic education and learning skills a major stumbling block in finding new workers.
- Shortages exist and are growing in workers with technical skills and knowledge in many occupational areas, and businesses face knowledge obsolescence among their labor force.
- Robust economic growth in the future is challenged by loss of county population, a significant urban core population consisting of chronically unemployed and discouraged workers with many barriers, skill mismatches between labor supply and labor demand, decentralization of job opportunities, and slow growth in educational achievement and wages in comparison to peer counties.
- Logistical challenges in coordinating among the many economic and workforce development entities and with workforce development entities including the One Stop.
- Some populations are underserved: dislocated workers, Hispanics, and ex-offenders.
- Much of the business community is unaware of One Stop services.

Goals and Opportunities

Goal 1 – Support the goal of economic development to attract, retain and expand existing businesses and jobs by increasing the size, skills, and qualifications of the workforce

Goal 2 – Increase the availability and effectiveness of the local area's workforce development services with a seamless service delivery network

Goal 3 – Institute an effective continuous improvement process guided by customer needs, satisfaction, and success; achievement of performance standards; and cost-effectiveness of the One Stop system of partners and WIA services for adults and dislocated workers

Goal 4 – Provide workforce development programming that offers easy to navigate high quality services to help at risk youth, 14-21, transition successfully to adulthood and to economic self-sufficiency

Goal 5 – Improve market position of the One Stop.

II. Workforce Area Description

a. Demographics and skills attainment level of the population (see also Section IVf, on changes in local demographics.)

Area 13 covers all of Hamilton County. The largest city in Hamilton County is Cincinnati. Hamilton County has an estimated population of 823,472 as of 2003. The majority of the residents are white, 72.9%, 23.4% are black, 1.6% are Asian and 1.1% Hispanic.
In 2000, 5.6% of the population listed English as a second language. The most common non-English primary language spoken is Spanish. Hamilton County now has a Hispanic Chamber of Commerce, a newspaper called *Spanish Journal*, and many new retail stores catering to the Spanish speaking customer, with all signs and product information written in Spanish.

As of December 2004, the city of Cincinnati had a labor force of 173,700 with 162,200 employed and 11,500 unemployed, an unemployment rate of 6.6%. Hamilton County in its entirety has a labor force of 435,700 with 415,500 employed and 20,200 unemployed, or 4.6%. Discouraged workers, those no longer looking for work, and people "marginally attached" to the labor force who have not looked for work recently but want a job are estimated to increase the unemployment rate by about 10%, or, in Hamilton County, 2,020 additional unemployed.

The Census data show that approximately 17% of the individuals in Hamilton County are disabled. This percentage is consistent with the percentage of "working age" individual with disabilities. Individuals with disabilities under 64 are 35% more likely to be unemployed and 157% more likely to be in poverty. Access to places of work and to health insurance may be more important than ability to work (Howe, 2003).

However, 29.2% of adults age 25 or older have a Bachelor's degree or higher, and the vast majority, 82.7%, has a high school diploma or equivalent (Census data, 2000).

In Hamilton County in 2002, 10.8 per cent lived in poverty. For children, to age 17, the percent was higher at 14.4%. Median household income was $42,457.

b. What is the makeup of business in the workforce area by industry sectors?

As a large metropolitan area, Hamilton County (Area 13) has residents employed in all industry sectors. Hamilton County residents travel to surrounding counties for employment and vice versa. The average commute time to work for the Hamilton County resident is around 23 minutes.

Hamilton County, specifically the City of Cincinnati, is in the center of a primary metropolitan statistical area titled Cincinnati PMSA. The most current industry data are reported for the entire Cincinnati PMSA. This area covers three counties in Indiana, eight counties in Kentucky and four counties in Ohio. Therefore, all industry data in this report will be given for the Cincinnati PMSA in its entirety. The complete list is located in Appendix A.

c. What percent of jobs exist in each sector?

As of December 2004, the two largest private sectors are Health Care and Social Assistance with over 100,000 employees and Food Services and Drinking Places with over 63,000 employees.

In the 13-county area local governments have approximately 70,000 employees, including all city, village and township employees and public school, police and fire department employees. Because many local governments require their employees to be residents of the community which they serve, employment for Hamilton County residents may not be available in the 12 other counties listed in the Cincinnati PMSA. Therefore this industry sector will not be addressed as a high employment option for Area 13. The complete list is located in Appendix A.

d. What educational attainment is needed to do these jobs?

Although occupations that generally do not require post secondary institutional training provide more than 70% of annual job openings, other occupations requiring at least post secondary training will grow at a faster than average rate. Workers with higher levels of education and training have more career options and higher income prospects.

The education and job skills necessary to obtain employment in the local market, particularly in demand occupations vary widely. Around 37% required a high school diploma or equivalent and some on the job training. Approximately 39% require a minimum of vocational training. 11% of the demand occupations require a minimum of a bachelor's degree for most employment. In addition many businesses are now having occupations certified through the National Skills Standard Board. This will lead to an increase in standardization of specialized training traditionally done in an on-the-job training format. This training for certification could be done as a stand alone or in addition to formal class room training.

The occupations requiring the least training are in positions that are often part-time and entry level, such as: retail sales, cashiers, packers and packagers, waiters and waitresses, janitors and cleaners, stock clerks and order fillers, and security guards. The skills needed for these positions include basic mathematics, basic reading, manual dexterity, eye hand coordination, and soft skills such as: good interpersonal communication, following instructions, punctuality, and good attendance.

Occupations in demand in southwestern Ohio that require vocational or technical training are often full time. The positions may or may not be entry level depending on the occupation and the industry within which one is hired. For example, tractor-trailer truck drivers required a short-term training, usually provided through a proprietary school. This training will prepare an individual to start in a position as a tractor-trailer truck driver.

In contrast, a position such as a secretary may be the second or third job that a person has in a career ladder. An individual may start as an office clerk or receptionist or information clerk prior to working as a secretary. The secretary position often requires more technical training in current computer programs for word processing, spreadsheets and databases.

Several occupations requiring vocational or technical training can be a career ladder group. For example, an individual may start as a nurse aid or home health aide and move up to a medical assistant or possibly choose a longer term training to become a licensed practical nurse. The positions in this group commonly require a minimum of basic mathematics and often more advanced mathematics and for some knowledge in science. They also require a minimum of basic English skills and often more advanced English skills. These positions require problem solving, analysis, and decision-making skills. In addition to needing good manual dexterity and eye hand coordination, the soft skills for these positions are also at a higher capability. Often individuals in these occupations must have very good interpersonal communication skills, particularly in the health care occupations.

The final educational grouping of occupations in demand is those that require a minimum of a bachelor's degree. With the exception of a few, the majority of these positions are in computer and information systems. The other demand occupations requiring a bachelor's degree are registered nurses, general and operations managers and elementary school teachers. In addition to high mathematics and English skills, these individuals must exhibit critical thinking, analysis, problem solving and good judgment and decision making. The individuals in these positions need excellent interpersonal communication skills and often presentation skills. With regard to the computer and information systems positions, individuals must have high skills in analysis, mathematics, science, English, trouble shooting, critical thinking, and decision making.

e. What resources are available for training in the workforce development area?

The Southwest Ohio Region has a wide array of education and training resources available to adults and dislocated workers. The region is home to major universities, community colleges, vocational education districts, and an extensive list of private training vendors, schools, and community based organizations.

The region has a diversified business economy; is home to Fortune 100 and Fortune 500 companies; and, is well represented by firms engaged in international trade. A thriving regional economy supports the predominant role of business as a provider of skill training to the region's workers. Taken together, the quantity and quality of the region's employment and training options make the region largely self-sufficient in providing for the needs of its workforce, negating the need to leave the area to obtain virtually any form of skill enhancement.

Some examples of training resources follow:

(1) Primary/secondary education and GED/ literacy programs.

Literacy programs, including GED and ABLE, are available at over 30 sites in the county; 60 in the region. For example, the Cincinnati Public Schools ABLE program helps customers to prepare for the GED Test, obtain the reading, writing, and math skills needed to get or keep a job, upgrade academic skills for technical training/college, learn English as a second language, study to become a U.S. citizen, and learn basic computer skills.

(2) Several public schools have relevant programs. Several Cincinnati Public High Schools have career focuses: Examples include

- The School for Creative and Performing Arts, a pre-professional program focusing on careers in the arts
- Career in hospitality program at Dater High School,
- Hughes Center which contains Cincinnati Academy of Mathematics and Science, High School for the Communications Professions, High School for the Health Professions, High School for Teaching and Technology, and the Zoo Academy
- Robert A. Taft Information Technology, a program focusing on a wide range of information technology skills with access to cutting-edge technology
- Western Hills Design Technology focuses on engineering technologies
- Withrow International focuses on knowledge and skills valuable in a global economy. Program options include three foreign language programs and an International Business Academy (finance, travel & tourism and law/paralegal).
- Withrow University, an intensive college-preparatory program linked with local colleges and universities and offering college-credit courses and community service opportunities
- Woodward Career Technical School with career technical education programs focused on Advanced Technologies and Engineering, Building Technologies and Architecture, and

Health Occupations/Bio-Science. Mentoring & internship links to businesses and universities

- Jobs for Cincinnati Graduates, which provides drop out prevention, career development, and job readiness programs in nine high schools.

(3) CPS's adult education program offers

- State tested nurse assistant training.
- Community based technology program in Empowerment Zone neighborhoods–a collaboration of public high schools, community based agencies and Cincinnati State – for adults and school children. Offers computer training, GED test preparation, job preparation, and college and career counseling.

(4) Colleges

Cincinnati State Technical College

(a) Workforce Development Center – provides customized training that meets local business needs

(b) Over 50 technical degree programs in business, health care, science, information and engineering technologies; cooperative education program

(c) Construction of a $55 million facility for an advanced technology and learning center has just been completed.

Great Oaks Institute of Technology and Career Development – career and technical education department of 36 affiliated school districts
Great Oaks provides the following services for youth:

- Technical foundations courses in many affiliated schools;
- Co-Op programs in Business, Information Technology and Marketing in several affiliated schools;
- Career and Technical programs at four campuses;
- Full and part-time adult workforce development programs

University of Cincinnati – Examples:

- Applied health sciences (E.g., physical therapy, clinical technicians) and nursing
- Business
- Applied science
- Education
- Criminal justice
- Social work
- Entrepreneurship
- Engineering
- Design, art, architecture and planning

Apprenticeship programs, run through unions
Examples:

- Cincinnati Plasterers, Bricklayers, Construction Craft Laborers, Composition Roofers, Reinforced Concrete Iron Workers, and the Tile, Marble and Terrazzo Joint Apprenticeship and Training Committees
- Independent Electrical Contractors – operating engineers
- Painters and Allied Trades
- Plumber, Pipe Fitter, and Mechanical Equipment Service Apprenticeship programs.

Other training programs

- City of Cincinnati -- EPA Brownfield program
- Greater Cincinnati Micro-enterprise Initiative provides training to persons interested in starting their own businesses.
- Numerous training entities on the Eligible Providers list.

f. Who else is providing One Stop type services?

Numerous entities in Area 13 provide workforce development services in addition to training institutions listed above. The following are prominent examples that while not located at the One Stop regularly interact with them to maximize services to the local job seeking and business customers.

- Cincinnati Works – a poverty to self-sufficiency initiative. The program has 4 levels: 1) Job Readiness Training: includes structured training and one-on-one sessions until the member is employed. 2) Job search: includes group and individual sessions to assist members in finding a full-time job, paying a livable wage with benefits, in their fields of interest. 3) Job Retention: includes intensive follow-up services to the member after job acquisition to promote the stability of the employment. 4) Advancement: includes services for those who have demonstrated stability in the workforce. Enables members to create a plan to pursue promotional, educational, and skills training opportunities.
- Urban League – offers comprehensive employment assistance services focusing on preparing African-American and Appalachian jobseekers who may have employment barriers due to lack of work experience, lack of education/training or criminal backgrounds.
  - Pre-employment training services include: Job counseling, one-on-one mock interviews, resume development class, interviewing skills and techniques class, job referrals available through the Internet, and an introduction to computer skills.
  - YouthWorks© -- a job readiness-training program designed to assist the 14-17 year-old ready to enter the workforce for the first time. The goal is to provide a real world perspective of the expectations of employers, to assist this group in acquiring the necessary skills to become successful employees, and to give youth their first paid work experience.
  - Teen Entrepreneur Program – a collaboration with General Electric Company that provides financial planning workshops to teach youth how to manage money.
- Goodwill Industries'-- helps people with barriers to working gain the skills they need to succeed in today's workforce. Focuses on services to low-income or welfare-dependent individuals with limited education or employment skills, a criminal record or history of substance abuse; people who lost their jobs due to changes in the local economy, people with disabilities or a medical condition and need to build their skills or stamina to maintain employment.
- Work Resource Center – WRC provides services to prepare youth and adults with disabilities and life disadvantages for the world of work. Each year, WRC provides social adjustment and job training services to nearly 17,000 individuals through programs and collaborations. WRC participants are: individuals with developmental, sensory or physical disabilities; people who are chronically unemployed or underemployed, including those moving from welfare-to-work; and youth at-risk who need a support network to connect to work .

- Jewish Vocational Service – works with individuals to increase their self-sufficiency, independence, and/or participation in the community by providing a continuum of vocational, educational, and related services.

- Jobs Plus – a faith based job readiness program that specializes in serving the ex-offender.

- Greater Cincinnati Chamber of Commerce – Careers under Construction is a workforce expansion project collaboration with the Work Resource Center to help recruit and retain candidates for jobs in the region's construction trades, particularly minority and disadvantaged individuals.

III. Current operations

a. How are the area resources used to support local workforce efforts?

Job seekers have a variety of services from which to choose in Hamilton County. At the local One Stop Center a job seeker starts with a quick assessment will determine the first recommended service/s.

In addition to the self-service option of the resource room, the job seeker may be referred to one of the following: direct partner service, workshops, career counselor or training specialist. The direct partner services will provide their specialized services for the customer based upon eligibility. When a customer is in need of more individualized services a career counselor will provide one or more of the following: individual career counseling, placement assistance, and a detailed plan. In addition the career counselor will be well-versed in labor market information (LMI), work closely with job developers and have knowledge of prerequisites for training programs. The career counselor could also refer the customer to a training specialist or standardized academic and vocational assessment services. The assessment services will include interest, aptitude and basic academic testing. The training specialist will assist with education/training grant applications, direct training such as Trade Adjustment Act, career and technical training. The training specialist will know the criteria for training such as income eligibility (WIA Adult, etc.), skills needed, limitations due to criminal record, etc.

Services for the business customer are covered in three main clusters: recruitment, training and outplacement. Those services are offered in a variety of ways to meet the business customer's needs. The services are:

- Recruitment via Job Fairs, screening of candidates, etc.
- Retention programs
- Outplacement services including rapid response
- Customized training
- OJT
- Tax Credits and incentives
- Veteran's licensing and certificates
- Veteran's OJT
- Customized LMI beyond the initial industry snapshot
- Incumbent employee services such as mediation, services to maintain current staff and increasing customer skill sets training

Detailed information is located in Appendix B.

b. Where is the majority of time and resources being spent? Are all services receiving the correct amount of staff time and resources based on the workforce area's priority needs?

The majority of time and resources of all partners are spent providing what WIA describes as core and intensive services. Many businesses and job seekers state they are looking for job matching services. While this is the description of needs provided by the customer, the actual services are much more extensive. For the business customer, the screening of applicants, customized labor market information, and possibly suggesting changes in the description of the position for recruitment are core services that support the job matching activity. For the job seeking customer, clarification of skills, identification of transferable skills, resume development, interview skills, employment retention preparation and an analysis of what the job will actually entail including hours, are just part of the preparation for the job matching.

A complete description of partner responsibilities for all One Stop services is in Appendix B.

c. How are the workforce preparation and development needs of youth being addressed?

The Southwest Ohio Region has many providers and training activities that benefit at-risk youth in their transition from school to adulthood and to economic self-sufficiency. The local WIB has established a Youth Council to coordinate youth workforce development activities in the City of Cincinnati and Hamilton County. The Youth Council, representing major youth serving providers as well as business is committed to developing a community-wide strategy that serves all youth in the Southwest Ohio Region. The local area promotes youth services that can intervene constructively in the life trajectories of vulnerable youth, 14-21 years of age and give them a better chance of building productive lives. Services work (1) to keep youth in school and improve their educational achievement; 2) to prepare youth to succeed in employment; and 3) to develop the potential of youth as citizens and leaders.

The Youth Council is also actively engaged in the oversight of the WIA funded services for low-income, disadvantaged youth between the ages of 14 and 21. The Youth Council has established a Vision and Guiding Principles, written Structure and Operating Procedures, participated in Request for Proposal (RFP) reviews and established policies.

In 2004, the Youth Council redesigned the WIA youth system and rebid WIA youth services. Eight new 18-month contracts began January 2005, serving 650 youth. The Administrative Entity has an option to renew the contracts for an additional year, contingent on provider performance and funding availability.

Chief elements of the redesigned WIA youth system are:

- A Youth Zone has been established at the One Stop to conduct recruitment, orientation, eligibility determination, initial assessment and referral to a WIA provider or other services in the community. The staff will work closely with the One-Stop to assure mutual referrals, exposure of youth to One Stop Services, and effective use of each other's resources. They will also coordinate with the One-Stop in developing partnerships with local businesses and gathering information about their ongoing and emerging labor market needs. In designing its services, the Youth Zone will integrate best practices in ways that motivate youth to engage in services; enhance youth strengths, needs, and goals; and promote youth development.

  The Youth Zone will operate a Resource Room that provides:
    - Information on the full spectrum of youth activities and services in the region, including WIA-funded and non-WIA funded services
    - Local labor market information, including high growth industries and career pathways to these jobs.
    - Access to job matching websites
    - Career exploration resources
    - Information on training programs and sources of grants and loans
    - Space for youth to engage in interactive activities.

- Youth are enrolled in one of seven comprehensive service-providing entities, which arrange or provide all required WIA service elements and case management. The goal is to offer services that are accessible, seamless and easy to navigate.
- The Individual Service Strategy is updated through ongoing discussions and input from the youth, significant adults and service providers. At a minimum of every ninety days, a complete analysis of progress towards completion of the ten elements are assessed and documented in the youth's case file.
- Each WIA youth provider is expected to leverage resources and collaborate with other community providers, with WIA funds used to pay for services that have no other support.
- Paperwork requirements have been streamlined to expedite eligibility determination and enrollment into services
- Services and programs make use of best practices and continuous improvement procedures.
- WIA youth providers are expected to significantly involve employers for help in readying youth for the labor market and for providing youth with jobs.
- WIA youth providers are held accountable for achieving state and local standards.
- WIA youth providers will aim at preparing the county's most at-risk and neediest youth for real job opportunities.
- WIA youth providers will help youth attain solid cognitive decision-making and people skills and some post-secondary education so they experience success and a living wage in the 21st century labor market.

The table below lists the current WIA-funded youth service providers under contract through June 30, 2006. Together the service providers (excluding the Youth Zone) expect to serve 650 youth between January 1, 2005 and June 30, 2006. 40 percent of youth served will be out-of-school youth.

TABLE 1

WIA youth service provider	Description of Service	Number to be served/18 mos.
Work Resource Center	Youth Zone	2000
Literacy Center West	Literacy and workforce development services of out-of-school men, 19-21, including ex-offenders	75
YWCA	Literacy and workforce development services for out of school women, 16-21, many of whom will be parenting or pregnant	60
Henkels & McCoy	Technology-based literacy and occupational training program for out-of-school youth, 19-21	90
Jobs for Cincinnati Graduates	Drop out recovery and work readiness/employment program for out of school youth, ages 16-21	40
Work Resource Center	Work-based learning and tutoring program for in-school youth, 16-18	90
Jobs for Cincinnati Graduates	Comprehensive drop out prevention and work readiness program for in-school – onsite in 9 high schools	130
Citizens Committee on Youth	In-school program for youth, associated with an alternative school; provides comprehensive WIA services	165

Area 13 eligibility procedures

WIA requires that local workforce development areas define a sixth criterion of youth eligibility. The WIB has defined the criterion as: An individual who requires additional assistance to complete an educational program, or to secure and hold employment such as:

- An individual with a physical or learning disability as determined by medical or education records.
- An individual who does not perform at grade level based on standardized testing or documentation from education records or is determined to be basic skills deficient.
- An individual who has never worked.
- An individual who has difficulty keeping a job (e.g., chronic job instability, changing jobs frequently and unstable work history)

The WIB also permits 5% of enrolled youth who do not meet low-income criteria if they meet the following criteria:

- school drop outs,
- youth are basic skills deficient,
- educational attainment one or more grade levels below the grade level appropriate to the age of the individual,
- pregnant or parenting
- youth with disabilities
- individuals who are homeless or runaway or a foster child
- offenders
- Other youth with serious barriers to employment, such as youth with HIV or victims of physical or emotional abuse, etc.

Youth with special needs. The youth zone and service providers recruit youth with special needs including: youth with disabilities, youth offenders, pregnant and parenting youth, youth deficient in basic literacy skills, school drop-outs and/or homeless or runaway youth. Several of the providers have designed services that are responsive to special needs populations (see Table 1 above), and other community resources will be utilized on a case by case basis. Hamilton County Job & Family Services (HCJFS) will provide referrals for youth in the foster care system as well as youth who receive Temporary Assistance to Needy Families (TANF) funds.

Coordination with the Cincinnati Job Corps Center: As an option, out of school youth between the ages of 16 and 24 who need assistance with obtaining a GED, vocational training, career exploration, social skills training and employment assistance will be referred to the Job Corps. Job Corps services will be presented at Orientation in the Youth Zone. The Job Corp has an office located at the local One-Stop and they host weekly orientations to recruit new participants and provide information about available services in the community.

Coordination with the Cincinnati Job Corp Center is also enhanced by the Cincinnati Job Corps Liaison's membership on the Youth Council. Information and updates about the Cincinnati Job Corp are shared at Youth Council meetings and with WIA-funded youth service providers. The Cincinnati Job Corps offers occupational and vocational training in Auto Mechanics, Facility Maintenance, Business & Computer Skills, Carpentry, Food Service & Culinary Arts and Welding. WIA-students that are referred and accepted at the Job Corp will be required to complete a 4-week career preparation program before selecting an individual area of study.

d. Are there other local policies, procedures, assurances and certifications, and/or processes pertaining to the current operations of the local area?

The Area 13 Workforce Investment Board has established many local policies for all three funding allocations under WIA Title I. The following is a list of those policies, which are printed in full in Appendix C.

- Southwest Ohio Regional Workforce Investment Board Operating Policy
- Standard of Self-Sufficiency Policy
- Limited Funds Priority of Service Policy
- Supportive Services Policy
- Individual Training Account Policy
- On-The Job Training Policy
- Customized Training Policy
- Initial and Subsequent Eligible Training Provider Policy
- Credential Policy

1. The Area 13 Workforce Investment Board assures it will establish fiscal control and fund account procedures to ensure the proper disbursement of and accounting for all fund received through the Workforce Investment Act.

2. Area 13 Workforce Investment Board assures that it shall keep records that are sufficient to permit the preparation of reports required by the Act and shall maintain such records, including standardized records for all individual participants and submit such reports as the State may require.

3. Area 13 Workforce Investment Board assures that it will collect and maintain data necessary to show compliance with the nondiscrimination provisions of the Act.

4. Area 13 Workforce Investment Board assures that funds will be spent in accordance with the Workforce Investment Act, regulations, written Department of Labor Guidance, written Ohio Department of Job and Family Services guidance and all other application Federal and State laws.

5. Area 13 Workforce Investment Board assures that veterans will be afforded employment and training activities authorized in the Workforce Investment Act, to the extent practicable.

6. Area 13 Workforce Investment Board assures it will comply with any grant procedures prescribed by the Secretary which are necessary to enter into contracts for the use of funds under WIA; including, but not limited to the following:

General Administrative Requirements

29 CFR part 97–Uniform Administrative Requirements for State and Local Governments (as amended by the Act) and OMB Circular A-110 as applicable; 29 CFR part 96 (as amended by OMB Circular A-133-Single Audit Act; OMB Circular A-87–Cost Principles (as amended by the Act), OMB Circular A-122 and A-22 as applicable.

Assurances and Certifications

SF 424 B - Assurances for Non-construction Programs; 29 CFR part 31, 32 - Nondiscrimination and Equal Opportunity Assurance (and Regulation); CFR part 93 - Certification Regarding Lobbying (and Regulation); 29-CFR part 98 - Drug Free Workplace and Debarment and Suspension; Certifications (and regulation).

The location at 1811 Losantiville received conditional certification in the spring of 2004 that continues until the full certification is completed.

e. How is the local area ensuring continuous improvement of services and the One Stop system

All One Stop partners will participate in a process of program review and continuous improvement of programs identified in the WIA and offered at the One Stop Center, to offer the best possible services and seize opportunities for further integration. The partners agree to develop consistent core products and services with quality standards to be deliverable from any partner. The partners agree to plan for, develop, and implement cross training on all partner services to assure that business and job seeking customers get to the right service the first time. To assure that services are responsive to the needs of the community, partners will survey customers to obtain feedback on customer satisfaction. All partners will participate in the ongoing development and improvement of the SWOCRN one-stop center procedures, policies and operational management. All partners will be part of a joint planning process that will continuously review the needs of the Southwest Ohio workforce and business community and refine the services of the one-stop system based upon those needs. The One Stop Manager will facilitate the above through monthly Operations meetings with representation from all partners.

Specifically for WIA Title I, each contracted provider is expected to implement vigorous quality assurance and continuous improvement practices:

- collect relevant data on program utilization, performance outcomes, customer satisfaction, and cost effectiveness
- Implement a process and schedule for reviewing and analyzing data, identifying areas to target for improvement, and diagnosing causes of failure to meet contract expectations.
- Implement and monitor corrective actions.
- Report the results of continuous improvement in monthly reports for the WIB and Administrative Entity.

Each contract includes performance standards and other contract requirements. Monthly contract administration meetings between the Administrative Entity and provider managers take place to discuss progress and operational issues. Technical assistance is arranged as necessary.

Twice a year, at a minimum, the Administrative Entity conducts formal onsite monitoring visits. These include interviews with managers, staff, and customers; observation of workshops; and a review of customer files for quality and completeness. A monitoring report highlights strengths of the operation, areas in need of improvement, and recommendations. If necessary, the provider is required to develop a corrective action plan that includes identification of the required corrective action issue; steps the provider will take to address the deficiency, time frames, responsibility, and monitoring and follow up procedures. A subsequent visit is scheduled to review progress in implementing corrective actions.

f. Identify the needs not being met in the workforce area. Can additional partnerships be created to help meet these needs? (Gap analysis)

Enough services exist and are distributed geographically, but they are not as well coordinated as they could be. Coordination is improving with the co-location and integration of the services of federally funded partners and other community partners at the One Stop and their representation on the WIB.

In addition, job seekers are not well aware of what services do exist and how these services could be appropriate to their needs for employment, training, and advancement. A study of the Chamber of Commerce demonstrated that most area businesses are unaware or have little understanding of what the One Stop can offer them. See section V. Marketing and Communication for plans to address these problems.

IV. Market trends analysis

a. i. ***What do current employers want and need?***

Employers Want

Key findings from the *Workforce Development Voice of the Customer Project* March 2000 are still represented in our local economy. They are supplemented by learnings from Ohio business interviews by Ohio Workforce Policy board members, as reported in "Aligning Ohio Job Development and Global Business Strategy."

- Employers need a workforce with a well-developed set of basic skills, including reading writing, math, simple communication, work ethic and computer literacy. Business are still finding lack of basic education and learning skills a major stumbling block in finding new workers.
- Employers have identified the following as soft skills requiring further development: communications, entrepreneurial thinking, team building, creativity, innovation, and supervisory skills (including working with diverse populations.) Employers are willing to continue education in the area of soft skills, as long as parents, K-12 and post high-school education build a foundation.
- Technical skills – Employers tend to view themselves and post-high school education as primarily responsible for technical skills Technology and business requirements are changing faster than employer or educational systems. Therefore, employers desire curricula, both internal and external, that keep pace with rapidly changing work and technical requirements. Employers report that shortages exist and are growing in many occupational areas, and that they face knowledge obsolescence among their labor force.

Problems that exacerbate skill gap issues

- Population is decreasing in Hamilton County--5% of its population since 1990 as a result of a lower birth rate and out migration. The labor force participation rate is declining because the aging population and the increased number of discouraged workers. Population loss among entrepreneurial age groups who are younger adults is a particular concern.

- In addition, labor force participation rate is declining. This problem is likely to worsen with the aging of the baby boomers, who will take their significant skills with them when they retire. Some of this may be mitigated by the growing number of new retirees that choose to stay in the labor force because of the need for additional income.

  At the same time robust economic growth in the future will depend in part on expanding the available workforce, including an increased participation rate for targeted populations, such as young adults, older workers, individuals with disabilities, dislocated workers who are discouraged and no longer seeking work, and people with barriers to succeeding in the workforce, such as lack of English language skills, little work history, family responsibilities, and felony convictions.

- Because of growing job decentralization in the region, a gap exists between employer job location and work hours and the availability of qualified workers who can arrange affordable, viable transportation and/or obtain reliable, affordable, and consistent child care. There is currently no county wide transportation for Hamilton County. Sprawl most directly affects poor inner-city residents. Moreover, the chronically unemployed and discouraged workers, a potential source of labor both for entry level and skilled jobs, face barriers that need to be addressed to garner a larger qualified workforce.

- There is a gap between the size and qualifications of labor force and demands of the job market. The region suffers from both high and low skill mismatches between labor supply and labor demand: Shortages exist in skilled labor (e.g., metal working and manufacturing industries, computer science, education, skilled trades) and unskilled labor in the sectors of business and administration, nursing, and services.

- Although educational achievement has improved in 20 years, it is not keeping up with peer counties particularly in post secondary education. This is important because there is a direct correlation between job growth and educational attainment and job training level.

- Ohio occupations with the most job openings are generally low-wage (under $11 per hour), require little education or training, and are in the service sectors. Higher pay jobs (over $11 per hour) are less plentiful and include registered/licensed nurses, managers and sales representatives, managers and supervisors, computer software engineers/computer support specialists, and truck drivers.

  In using WIA training dollars, Area 13 is expected to emphasize those occupations that are high demand, high wage and high skill. This poses some problem. The industries with the largest number of jobs generally pay the least: Services ($591) and retail ($340). Manufacturing pays the most at $1010 average weekly wage, but is a declining industry. Finance, insurance and real estate pay $866 but only comprise 6.6% of the workforce.

- Although occupations that generally do not require post secondary institutional training provide more than 70% of annual job openings, other occupations requiring at least post secondary training will grow at a faster than average rate. Management and Business generally require a four-year degree. Many in the service area also require post-secondary training. Workers with higher levels of education and training have more options and better prospects.

- A 2003 survey by the Chamber of Commerce of 478 employers in the greater Cincinnati region in advanced manufacturing, biosciences, information and communication technology (ICT) found that these industries face special challenge is meeting their training needs. Since most ICT and biosciences companies are relatively small with small staffs, making it difficult to arrange training, the report recommends pooling multiple employers' training needs. These companies are also highly diverse, causing a similar problem. The report recommends that workforce development efforts be focused on small targeted partnerships linking local industries with specific workforce needs to educational institutions that can meet those needs. At the time of the survey, few employers were using existing program offerings of local colleges and universities to train incumbent workers. The report recommends a significantly greater investment by employers to regional workforce development.

a. ii. What are the worker populations whose needs should be addressed? In what ways can these workers needs be better met?

The One Stop is expected to market its services aggressively to business and anyone looking for employment.
The One Stop does have customized services for targeted groups including ex-offenders, persons with disabilities, few skills, little work history or education, or personal barriers; persons with cultural or language barriers, such as Hispanics, young adults, older workers, skilled workers, and professionals.

<u>Dislocated workers</u>: The One Stop works closely with union representatives to identify dislocated workers. Area 13 successfully sought special Rapid Response funds ($400,000) from ODJFS to serve dislocated workers and provide training for up to 60. It also recruits dislocated workers through Unemployment Insurance Profiling meetings. Area 13 has been under-serving dislocated workers and is identifying strategies for better engaging and serving them.

Examples:
<u>Ex-offenders:</u> 2500 offenders who were released from prison returned to Hamilton County in 2002, and if Hamilton County is similar to the state as a whole, as many as 35% will return to prison within three years. A multi-agency ex-offender task force of 42 organizations, including a One Stop

representative is strategically addressing the employment needs of ex-offenders, is active in Hamilton County, and is staffed by the Community Action Agency, a One Stop partner. The task force has sponsored a pre-release job readiness series at Queensgate Correctional Facility; carried out a job developer workshop about employer incentives to hire ex-offenders; and has planned an entrepreneurial skills training program specifically for ex-offenders. Plans for 2005 include a workshop for human resource managers on the tax and bonding benefits of hiring ex-offenders and compiling a directory of community services for ex-offenders.

The One Stop is developing approaches to helping offenders become employed. One is to have them work for a temporary agency to build a work history and gain work experience, with the expectation that this will help them get permanent jobs. Another is training them as truck drivers, an occupation open to considering ex-offenders.

WIA funds are used to support specialized work readiness and placement programs in the community.

Immigrants: The WIB is giving priority to serving persons with cultural or language barriers, such as Hispanics, who may be recent arrivals in the community, and expects the One Stop to greatly increase the numbers served. In the coming year, the One Stop will have a Spanish speaking career consultant on staff, and will make adaptations in its programming to meet the needs of Hispanics. The One Stop will involve Hispanic organizations and interested employer organizations to recruit Hispanics and find them employment.

Persons with disabilities: The One Stop is moving to a new location which will meet all ADA requirements and meet One Stop certification requirements. The resource room included technological adaptations for people with disabilities, including –
Career coaches can also refer disabled people to one or more of its partners, such as Good Will (an agency that helps people with many barriers find employment), CRI (a supported work and case management program for the mentally ill), the Work Resource Center, which provides supported work for the developmentally delayed, and the Ohio Department of Rehabilitation Services Commission (helps people with severe disabilities to achieve their goal of employment).

b. What changes can we anticipate in the regional economy and local workforce that will have workforce development implications?

- Between October 2000 and October 2004, Hamilton County's jobs declined 33,198 or by 6 percent. According to multiple Economic Agencies and specifically published in *The Ohio Economy and Labor Market*, October 2003 by ODJFS, the economic recovery so far is a jobless recovery. Although the local job picture has modestly improved in the last year, and unemployment is modestly down, jobs are still unavailable for many seeking them.

- According to the Community COMPASS report *Economy and the Labor market,* the economy of Hamilton County remains the major source of economic growth in the region. Despite the loss of jobs and population since 2000 it has a net gain of jobs over the long haul. The trend is a decline in the county's relative share of employment, business and industries compared to adjacent counties. Its economic base is diversified. However, the growth of the highly competitive global economy puts local decision-makers in a different environment when planning for gaining a competitive edge and fostering greater prosperity in the region. According to a November 2004 to the Governor's Ohio Workforce Policy Board, "Aligning Ohio Job Development and Global Business Strategy," "Global business strategies, including offshore outsourcing, corporate mergers and acquisition, global supply chain reorganization, global human resource management and new technology innovation by companies are having a much greater impact on how and where companies create jobs today. These factors are expected to have a greater influence on how Ohio approaches job and business development in the future."

- Goods producing (manufacturing) jobs continue to slip as a proportion of all jobs, while jobs in service-producing industries continue to grow. In the 1960s, manufacturing supplied 35% of all jobs and services about 17%. Their position is now reversed: Manufacturing jobs constitute 14% of the workforce, and service jobs 34%. This trend has implication for wages, in that while many service jobs do pay well (and industries with such jobs are expected to experience rapid in the next 5 years), on average manufacturing jobs supply 22% of Hamilton County's earnings, over a third more than would be expected by the proportional number of jobs. Services contributed 31% of earnings, slightly less than would be expected. Increasing competition may make it difficult just to keep existing manufacturing jobs (Aligning Ohio) - (See also Section c below)

  - Workers' pay in Hamilton County has grown at 1.6% on an annual basis, only half the national rates. (Most surrounding counties do better.) This may be in part a result of higher-paying sectors being located in other parts of the country. Several sectors pay considerably less than the national average. This situation can lead to losses in the labor force as workers are attracted to other, higher-paying regions.

  - In the last few years the Hamilton County Planning Commission, under its COMPASS project, and the Chamber of Commerce of Greater Cincinnati have undertaken an analysis of significant industry clusters in the region.

  Focusing resources on clusters can "improve the capacity of local economic development officials to target jobs and industries (retention, expansion, attraction) that will benefit their residents and jurisdiction tax-bases" ("Hamilton County's Comparative and Competitive Advantages," p. 2). Clustered industries benefit from pooled labor markets that over time develop the skills and experiences to work in clusters industries. A desirable cluster for investment is one that has:
  - A positive growth rate compared to national growth (as well as strong national growth)
  - A high "location quotient" – when a locality is more specialized in that industry than the nation is, and that the industry is likely producing for export as well as local consumption."
  - High average wages
  - A strong employment base

  The Chamber of Commerce report, "Identification of Industry Clusters for Guiding Economic Development Efforts in Cincinnati USA" has identified 10 "candidate clusters" that meet these criteria in office, technology, and manufacturing-oriented industries. A summary of Planning Commission's application of their criteria to industrial clusters can be found in Appendix D.

Economic development initiatives in the county include:

- The Ohio Bridges to Opportunities Initiative is working to develop policy and practice plans that foster improved alignment of the workforce, academic, and developmental education missions of community colleges to more effectively serve low-wage workers.

- The Economic Development Task Force appointed in January 2005 by Hamilton County Board of Commissioners will:
  - Review current strategy and decide best way to use $2.5 million annual expenditure of economic development
  - Review zoning, permitting practices, and sewer development in the western part of the county.
  - Review the strategic role of the Hamilton County Development Company that provides loans to small businesses. The HCDC has created 5200 small businesses in 20 years and runs a business incubator.
- Cincinnati USA Partnership – the region's economic development initiative centered at the Chamber of Commerce. Includes:
  - Business attraction, retention, and expansion

- Regional marketing
- Business information and workforce development
- New business development initiatives

- CincyTechUSA – broad collaborative to promote technology growth and innovation, which can report results from several initiatives. This collaborative is particularly important because
  - the high-tech business sector is the part of Ohio's business base most likely to grow,
  - Ohio lacks a strong human resource strategy and needs to act to gain a greater human capital advantage for these strategic industries, and
  - The high tech sector is a source of high skills/high wage jobs.

  Source: Ohio Workforce Policy Board report, "Aligning Ohio Job Development and Global Business Strategy."

  Some initiatives in workforce Cincinnati PMSA are:
  - Regional Technology Workforce Alliance. A network of trade associations, tech companies and educational providers identifies, coordinates and integrates educational and training resources in technology. It has taken the lead in working with employers, educators, and support organizations to address the region's tech workforce needs. Two local high schools now have technology programs (see section IIe).
  - Ohio Valley Affiliates for Life Science – a collaboration of regional university works cooperatively to grow the regional life science industry.
  - A comprehensive survey has benchmarked use of technology. Follow up surveys will analyze progress and identify areas of opportunity.
  - Venture capital funds have become available for early-stage technology projects

- Community Compass: a planning process begun by the Planning Partnership — an alliance of governments and planning commissions in Hamilton County, as well as civic and private sector organizations engaged in planning for the future of our county. Includes a campaign to assure economic prosperity

- Techsolve –complete 800 productivity improvement projects with manufacturers which allowed creation of 600 new manufacturing jobs, $22 million in new salary income, and 16,000 manufacturing employees trained.

- Center City Plan: Restoration and construction of downtown projects will increase the demand for skilled workers. Administered by Cincinnati Center City Development Corporation (3CDC)

c. Which industries are growing, which are declining?

Service sector employment dominates the region, but there is still a substantial manufacturing base. Service producing industries, especially retail trade and services, will account for two thirds of all job growth.

According to the December 2004 *Ohio Labor Market Review* the current industry status shows an expansion in service-providing industries creating close to 10,000 jobs. The industry sectors with the largest growth were leisure and hospitality, trade, transportation, and utilities, professional and business services and educational and health services. Government employment declined 2,600 during the year. Throughout 2004, employment losses in natural resources, mining and construction and manufacturing lowered employment in goods-producing industries by 3,400. The complete list is located in Appendix A.

This current industry status and changes in the last year are mainly consistent with the projections to 2010. These projections show continued decline in manufacturing specifically Printing and Publishing, Industrial Machinery and Equipment and Transportation Equipment. The projections show the largest increase in Business Services with an additional 38,300 employees added to this sector. Other large employee increases are projected in Private Health Services, Eating and Drinking Places, Engineering and Management Services, Social Services, Amusement and Recreation Services, Special Trade Contractors and Membership Organizations. The comprehensive list is located in Appendix B.

d. What ways can we transition workers from declining industries to stable or growing industries by building on existing skills?

Often services to this group of workers are provided in a reactive manner. Workers in declining industries often avoid the signs and believe they will retain their employment. Therefore several One Stop partners are responsible for providing Rapid Response services to employees facing layoffs. The One Stop is expected to market and promote Rapid Response so everyone involved in dislocation events is aware and takes full advantage of available re-employment services.

The One Stop works with dislocated employees to identify skills that could transfer to a stable or growing industry based on labor market information. The majority of individuals needing to move from declining industries do not have current job skills in demand and will need some retraining or training in a new field altogether. These individuals are defined as structurally unemployed.

e. What employers are you reaching and what employers should you focus more attention towards?

The local areas has been endeavoring to involve employers with high demand jobs that pay self-sufficiency wages (at least $9 an hour) and requires a high level of skills. To meet the employment needs of many customers, such as ex-offenders and customers without a diploma and little work history, the One Stop accepts job orders for entry level and unskilled jobs. The highest number of job openings the One Stop receives is in social services, banking, and business services. Staffing agencies and hotels also send in information on job openings but to a lesser degree. Postings for manufacturing jobs are rare.

The WIB has decided to focus resources on high-demand sector employment areas, for 2005 tentatively identified as:

a. Health care industry.
b. Construction Industry
c. Customer service (banking or retail)
d. Security
e. Environmental abatement industry.

The WIB will also work more intensively with the county's economic development, workforce development, and government entities to obtain direction on how the One Stop and its partners can best contribute to improving to the county's prosperity and living standard, including on which employers they should focus more attention.

f. What are some of the changes occurring in local demographics that may affect the current workforce system?

Hamilton County is losing population, mainly as a result of out-migration to surrounding counties. A decline in birth rates and a higher death rate of the aging population are also factors. It also attracts comparatively little in-migration. Cincinnati has lost an average of 9% per decade since 1960; Hamilton County has lost an average of 3% per decade since 1970. The loss of population has worsened since 2000. In the last three years, the County's population loss of 21,831 is greater than the population loss between 1990 and 2000. According to Community COMPASS educated and skilled persons form the largest group of out-migration. Poverty is concentrated in the core area of Hamilton County.

According to Community COMPASS *Economy and Labor Market* between 1990 and 2000, Hamilton County lost about half of its population of persons ages 22 and 34, referred to as the entrepreneurial cohort. This is the age group most likely to take risks and start new ventures, and their recent training is more likely to be up to date in new technology and science skills.

The population is becoming decentralized: Hamilton County's share of the regional population has decreased from 60 to 40%. The little growth that occurs is on the urban fringes. At the same time, the number of jobs has increased, outpacing the resident labor force.

The proportion of adults over 60 will increase by more than 20 percent by 2020.

Hamilton County's population is becoming more racially diverse. The proportion of African Americans, Hispanics, and Asians has increased. In 2000 Hispanics constituted 1.1% of the population and continues to increase.

The challenge is that educational attainment and income of Hispanics and African Americans are significantly lower than whites; for example median income in 2000 of African American households was about half of the median income of white households, and half as likely to have a four-year degree. In 2000, African-American unemployment was three times higher than that of whites (10.5% vs. 3.5%); labor force participation was 12% lower. The poverty level of African American households is more than three times that of whites.

The high proportion of female headed households is below the poverty line. (Poverty rates: Whites – 25.8% of families; blacks – 43.6%). They often face many barriers to self-sustaining employment. Families in poverty the key is to have full-time year round work. If two parents are working, the poverty rate is virtually non-existent. If one parent is working, the poverty rate is 5.4%. The Hispanic population has doubled in the last two years.

These trends are problematic since the size, structure, and quality of the resident labor force is a principal factor in growing and retaining economic vitality and quality of life. The trends affect the county's ability to attract "new economy" businesses. At the same time, increasing diversity can help the region's economic vitality, as young adults are often attracted to diverse areas.

V. Marketing and communications

a. What is the current marketing strategy and what plans are in place for improvements?

The Area 13 WIB marketing strategy is to provide general information about features and benefits of the workforce development system. Information sheets have been created and are used to educate the community about business and job seeker services.

The One Stop partners are working on a system wide approach to marketing. This system wide approach includes a catalogue of common products and services and a common brand. The strategy components are in various stages of development and implementation. Our One Stop's catalogue of common products and services includes labor market information, job matching and occupational information for both the business and job seeking customer. These products and services are available through all partners and via self service or professional services.

The area WIB has chosen a common brand, which will be rolled out in April 2005. The goal is to create a simple message that will speak to area businesses and targeted job seekers as well as the general public.

Currently marketing to the general public is occurring through public service announcements, participation on local radio talk shows, live remotes by local radio stations at job fairs, and advertising in the local newspapers. Marketing to the business customer is implemented through relationship development through meetings of the local Chambers of Commerce, Greater Cincinnati Human Resource Association and other local area business groups.

b. Are targeted job seekers and employers aware of the services provided? Which job seekers and employers need to be reached?

A May 2004 survey of local businesses, funded by the U.S. Chamber of Commerce, shows that most employers are not aware of the One Stop center. If they are aware of the One Stop Center they are only aware of a few services such as job posting and talent banks. While the low awareness is disappointing, it also makes the development and use of a new brand easy with very few transition issues in communicating this to customers.

With the job seekers, a comprehensive survey of targeted groups has not been completed to determine awareness level of the One Stop system. However, the number of people registering in the One Stop Center for services has been increasing.

Area 13 plans to strengthen its marketing to targeted groups, such as dislocated workers, Hispanics and other groups with limited English, and ex-offenders. It will also implement a more coordinated marketing strategy to the employer community and focus its marketing to industrial and occupational sectors to those sectors identified by the WIB and in consultation with economic development entities.

c. Does the current marketing strategy relate to a statewide marketing initiative?

The Area 13 WIB's current marketing strategy is aligned with the state initiatives as it is business driven, collaborative and working to serve a broader constituency by maximizing the utilization of funds invested to match the needs of the local labor market.

VI. Goal setting and Measures of Success
VII. Strategic Plan (sections combined)

Understanding the information collected in the above sections, what goals should be set?

What specific strategies will be used to change/improve current operations/activities to help meet established goals? Include timeframes and milestones.

Note: Bolded information in brackets cross-walks Area 13 goals with those of the State Workforce Policy Board.

The mission of Area 13's Workforce Investment Board is to develop a comprehensive workforce development system that will engage the entire community towards ever increasing levels of self-sufficiency and promote long term economic prosperity of the region.

Goal 1 -- Support the goal of economic development to attract, retain and expand existing businesses and jobs by increasing the size, skills, and qualifications of the workforce [***Advance Ohio Goal 1, objective 2; Goal 5]***

- Focus resources on employment sectors with high demand, high wage, and high skill jobs. In 2005, sectors will include health care and related occupations; construction and related occupations; technology, customer services/retail/ banking; security; and environmental abatement.
  - In recruitment of employers, focus on groups of related employers to more efficiently meet their labor market needs.

- Focus 90% of training resources on training for jobs that meet WIB criteria –two out of three of the following: high wage, high skill, and high demand occupations. ***[Advance Ohio Goal 3]***
  - Work with employers in identified sectors to (1) identify recognized training programs and (2) promote hiring of workers trained through the One Stop.

- Strengthen collaboration with economic development entities and employers to assure the workforce development system and the One Stop system in particular are responsive to the region's workforce needs. ***[Advance Ohio core value 5]***
  - Work with county economic development entities to develop at least one new collaborative initiative in 2005.
  - Implement a proactive Rapid Response Initiative including helping employers prevent or reduce the number of expected layoffs. July 1, 2005.

- Improve the local area's ability to identify new workforce development service demands and design effective programs to meet those demands
  - Establish an Employer Advisory Committee that meets quarterly to identify ongoing and emerging workforce needs
  - Increase in the number and quality of customized and demand driven workplace solutions provided to employers
  - Address employer and sectoral skill shortages through upgrading of job seekers, basic, job readiness, or occupational skills.
    - Co-locate an ABLE program at the One Stop – April 2005
    - Certify the One-Stops job readiness workshops (July 15, 2005)

<u>Goal 2 -- Increase the availability and effectiveness of the local area's workforce development services with a seamless service delivery network</u> <u>***[Advance Ohio Goal 2]***</u>

- Continue to develop an integrated One Stop System that provides seamless, accessible, and streamlined services with no wrong door for the county's employers and job seekers. [***Advance Ohio Goal 6]***
  - Relocate the full-service One Stop in a facility large enough to house required and community partners and maintain a professional atmosphere. Maintain a presence in two other high-traffic areas in the County. Milestone: March 2005. Obtain full state certification by April 15, 2005
  - Establish other access points, including the Internet, and community partners
  - Establish customer-friendly hours of service
  - Assure optimum customer flow through WIA and partner services
  - Expand self-help resources and workshops
  - Establish common customer satisfaction and quality standards for partner staff
  - Integrate partner intake and cross-train partner staff so they are able to make appropriate referrals, co enroll, and combine complementary services
  - Implement a system-wide approach to contacting business customers
- Leverage resources by strengthening working collaborations with community based entities, both at the one stop and in the community, and identifying service gaps and duplication. ***[Advance Ohio core value 9]***
- Diversify funding:
  - By the end of 2005 develop and implement at least one proposal for enhancing revenue resources outside the partner network
  - Evaluate the potential use of fee-for-service offerings for businesses.
- Strengthen working collaborations with vocational training and post secondary school entities and identify training gaps and duplication.
- Improve the capacity of the One Stop to provide effective products, services, and delivery methods to its adult and youth customers to help them find a job, keep a job, and stabilize/increase income. [See appendix __ for list of One Stop Services]

    - Implement a new contract with a One Stop operator and manager of WIA services with expanded services, increased accountability, strengthened performance standards and improved management (April 1, 2005)
    - Incorporate best practices in service delivery and products
    - Expand resources available for self-help in the Resource Center
    - Provide effective job matching technology, including making full use of SCOTI as a labor exchange resource. ***[Advance Ohio Goal 1, Objective 1]***
    - Strengthen post-employment and follow up service to promote worker retention and advancement ***[Advance Ohio Goal 4]***
    - Work with employers to evaluate training institution for their effectiveness in training people who are prepared to work
    - Obtain the approval of the Job Readiness curriculum being used by the One Stop from an employer group convened by the WIB
- Increase the ability of the One Stop to effectively serve targeted groups, including but not limited to dislocated workers, Hispanics, ex-offenders, older workers, and the disabled
    - Continue to collaborate with advocacy groups to identify appropriate service adaptations.
    - Continue to work with the Ex-Offender task force to address the employment needs of ex-offenders.
    - Recruit employers willing to hire people with special challenges

Goal 3 -- Institute a vigorous continuous improvement process guided by customer needs, satisfaction, and success; achievement of performance standards; and cost-effectiveness of the One Stop system of partners, WIA services for adults and dislocated workers ***[Advance Ohio Goal 7; core value 10]***

- Capacity building of staff and partners.
- Implement effective quality assurance practices for WIA services
- Cross-system standards and definitions for measuring effectiveness of the One Stop in providing fully integrated accessible services.
- Strengthen tools for measuring customer satisfaction
- Strengthen monitoring of and technical assistance to the One Stop and WIA services.

Goal 4 -- Provide workforce development programming that offers easy to navigate high quality services to help at risk youth, 14-21, transition successfully to adulthood and to economic self-sufficiency. ***[Advance Ohio goal 6]***

- Implement service contracts that carry out the new design for WIA youth services (see section IIIc)
- Fully integrate the WIA youth system with the One Stop by April 15, 2005.
- Improve performance on state retention standards for younger youth (post exit, youth are employed, in school, in training, or in the military) and employment and credential rate for older youth.

Goal 5 - Improve market position of the One Stop.

- Identify a new brand name by April 2005
- Implement an expanded marketing strategy to educate employers, training institutions, targeted groups and the general public about what services are available; their benefits and how to access them; and industries given priority for training and placement
- Implement a strategic approach to recruiting employers.
- Implement effective strategies for marketing to target groups: Workers receiving Unemployment Insurance, including dislocated workers; the disabled, Hispanics, and ex-offenders.

b*. What measures will we use to evaluate our success? Can we translate our goals into numeric targets and specific deadlines? What is the return on public investment?*

- WIA services will meet all state standards at least at the 80% level.
- WIA youth services providers will meet local standards in their contracts: Examples of standards in current contracts include:
    - 85% of enrolled youth will be actively engaged in services during a six month period. Active engagement is defined as 50 hours of documented participation in any combination of service elements (except follow up) in addition to Guidance and Counseling. Hours may be pro-rated if youth is enrolled less than six months.
    - 80% of enrolled youth will utilize the Youth Zone twice in a six month period (includes participation in orientation/eligibility determination)
    - 50% of youth who exit in the six month period will have two positive outcomes at exit or within 6 months of exit: goal attainment prior to exit, secondary (not dropping out) or post-secondary school enrollment, high school diploma or GED, other credentials, employment or in the military, enrollment in training/ vocational school/apprenticeship
    - 75% of youth who exit in the six month period will have one positive outcome at exit or within 6 months after exit
    - 90% of 90-day reviews are completed timely following Area 13 procedures (Timely = 10 working days before or after due date)

- The operator of the One Stop and WIA services will meet local standards in its contract, to be negotiated in March 2003. The contract will set minimum targets to be met for the provider to earn its profit. Standards will focus on increased number of One Stop customers, WIA enrollees, especially dislocated workers, persons receiving training, job seekers who find employment; businesses engaged, and target group members served.

- 85% of customers provided services through the workforce development system will achieve a full-time, year round work with high enough wage, through placement, retention and advancement services to support themselves and their families at a self-sufficiency level defined by board policy.

- Substantially increased use of the One Stop and partner services by employers, job seekers, and people seeking training and advancement.
    - Employers
    - Universal customers
    - WIA customers
    - WIA training customers
- Improved customer satisfaction and increased customer input on how the One Stop can better serve its customers
- For business services: number of business customers engaged, number of jobs listed, referral response time, number of jobs filled.
- Percent of job seekers and employers surveyed used the One Stop as a first stop to meet their needs.

c. How do these goals relate to the Ohio Workforce Policy Board's Goals

See annotation of the Goals, section VI.

VIII. Financial components

All financial information is located in Appendix F.

Appendix A

Cincinnati PMSA
Nonagricultural
Wage & Salary Employment[a]
Not Seasonally Adjusted

	Employment (in thousands)			Change (in thousands)	
	December 2004[b]	November 2004[c]	December 2003[c]	From Last Month	From Last Year
Total Nonagricultural	**883.2**	**883.3**	**876.8**	**-0.1**	**6.4**
Goods-Producing Industries	**144.0**	**145.8**	**147.4**	**-1.8**	**-3.4**
Natural Resources, Mining, and Construction	38.8	40.8	40.5	-2.0	-1.7
Construction	38.1	40.1	39.5	-2.0	-1.4
Manufacturing	105.2	105.0	106.9	0.2	-1.7
Durable Goods[d]	58.4	58.3	59.4	0.1	-1.0
Machinery Manufacturing	10.6	10.7	11.1	-0.1	-0.5
Transportation Equipment	15.9	16.0	15.4	-0.1	0.5
Aerospace Products and Parts	7.9	7.9	7.6	0.0	0.3
Nondurable Goods[e]	46.8	46.7	47.5	0.1	-0.7
Food Manufacturing	12.4	12.4	11.9	0.0	0.5
Service-Providing Industries	**739.2**	**737.5**	**729.4**	**1.7**	**9.8**
Trade, Transportation, and Utilities	188.1	185.6	184.7	2.5	3.4
Wholesale Trade	48.7	48.5	46.7	0.2	2.0
Merchant Wholesalers, Durable Goods	23.4	23.0	22.3	0.4	1.1
Retail Trade	101.4	99.3	101.4	2.1	0.0
Food and Beverage Stores[h]	16.7	16.6	17.2	0.1	-0.5
Grocery Stores[h]	14.1	14.0	14.6	0.1	-0.5
General Merchandise Stores[h]	19.5	19.0	20.0	0.5	-0.5
Transportation, Warehousing, and Utilities	38.0	37.8	36.6	0.2	1.4
Transportation and Warehousing	33.5	33.4	32.5	0.1	1.0
Information	15.7	15.8	15.3	-0.1	0.4
Financial Activities	56.9	56.4	56.5	0.5	0.4
Finance and Insurance	43.8	43.7	43.7	0.1	0.1
Insurance Carriers and Related Activities	17.4	17.3	18.4	0.1	-1.0
Professional and Business Services	132.2	132.5	130.4	-0.3	1.8
Professional and Technical Services	47.3	47.2	46.8	0.1	0.5
Management of Companies and Enterprises	30.3	30.2	30.1	0.1	0.2
Administrative, Support and Waste Services	54.6	55.1	53.5	-0.5	1.1
Employment Services	27.7	28.3	26.2	-0.6	1.5
Educational and Health Services	113.9	114.6	112.4	-0.7	1.5
Educational Services	12.4	12.6	11.3	-0.2	1.1
Health Care and Social Assistance	101.5	102.0	101.1	-0.5	0.4
Hospitals	34.6	34.5	33.1	0.1	1.5
Leisure and Hospitality	90.7	90.1	85.8	0.6	4.9
Accommodation and Food Services	69.0	68.2	67.8	0.8	1.2
Food Services and Drinking Places	63.3	62.6	62.0	0.7	1.3
Other Services	35.9	36.3	35.9	-0.4	0.0
Government	105.8	106.2	108.4	-0.4	-2.6
Federal Government	16.3	16.4	17.0	-0.1	-0.7
State Government	19.5	19.3	19.3	0.2	0.2
State Government Education[f]	14.3	14.2	14.4	0.1	-0.1
Local Government	70.0	70.5	72.1	-0.5	-2.1
Local Government Education	41.7	41.9	42.4	-0.2	-0.7

[a]See Technical Notes for concepts. [b]Preliminary. [c]Revised. [d]Includes wood products; nonmetallic mineral products; primary metals; fabricated metal products; computer and electronic products; furniture and related products, miscellaneous manufacturing. [e]Includes beverage and tobacco products; textile mills; textile product mills; apparel manufacturing; leather and allied products; paper manufacturing; printing and related support activities; petroleum and coal products; chemical manufacturing; plastics and rubber products. [f]Includes State universities. Excludes hospitals, the agricultural extension service, and the Ohio Department of Education. [g]Depressed due to labor-management disputes. [h]Not comparable to previous estimates due to change in industry defintion.

Appendix B

Cincinnati PMSA
Industry Employment Projections Report, 2000-2010
Division Totals

Industry Division	2000 Annual Employment	2010 Projected Employment	Change in Employment 2000-2010	Percent Change 2000-2010
Total Employment	940,220	1,074,550	134,330	14.3%
Goods Producing Industries	193,730	195,780	2,050	1.1%
Agriculture, Forestry and Fishing	9,670	10,930	1,260	13.0%
Mining	770	800	30	3.9%
Construction	42,140	48,910	6,770	16.1%
Manufacturing	141,150	135,140	-6,010	-4.3%
Durable Goods Manufacturing	72,410	69,150	-3,260	-4.5%
Nondurable Goods Manufacturing	68,740	65,990	-2,750	-4.0%
Service Producing Industries	698,300	829,370	131,070	18.8%
Transportation, Communications & Utilities	49,740	54,820	5,080	10.2%
Trade	219,310	242,490	23,180	10.6%
Wholesale Trade	55,950	60,160	4,210	7.5%
Retail Trade	163,350	182,330	18,980	11.6%
Finance, Insurance & Real Estate	56,020	63,290	7,270	13.0%
Services	270,250	357,400	87,150	32.2%
Government	102,980	111,370	8,390	8.1%
Private Households	2,090	1,550	-540	-25.8%
Nonfarm Self-Emp. & Unpaid Family Workers	46,120	47,860	1,740	3.8%

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, August 2003.

Cincinnati PMSA
Industry Employment Projections Report, 2000-2010
(Industries with 1,000 or More Employees)

SIC Code	Industry Title	2000 Annual Employment	2010 Projected Employment	Change in Employment 2000-2010	Percent Change 2000-2010
	Total Employment	**940,220**	**1,074,550**	**134,330**	**14.3%**
	Agriculture, Forestry and Fishing	**9,670**	**10,930**	**1,260**	**13.0%**
01, 02	Agricultural Production	3,110	2,780	-330	-10.6%
07	Agricultural Services	4,990	6,750	1,760	35.3%
	Mining	**770**	**800**	**30**	**3.9%**
	Construction	**42,140**	**48,910**	**6,770**	**16.1%**
15	General Building Contractors	9,690	10,010	320	3.3%
16	General Contractors, Exc. Bldg	3,540	3,720	180	5.1%
17	Special Trade Contractors	28,900	35,170	6,270	21.7%
	Manufacturing	**141,150**	**135,140**	**-6,010**	**-4.3%**
	Durable Goods Manufacturing	**72,410**	**69,150**	**-3,260**	**-4.5%**
	Nondurable Goods Manufacturing	**68,740**	**65,990**	**-2,750**	**-4.0%**
20	Food and Kindred Products	13,050	12,280	-770	-5.9%
23	Apparel and Textile Products	2,150	2,050	-100	-4.7%
24	Lumber and Wood Products	1,810	2,080	270	14.9%
25	Furniture and Fixtures	1,930	2,080	150	7.8%
26	Paper and Allied Products	4,950	4,220	-730	-14.7%
27	Printing and Publishing	14,400	11,180	-3,220	-22.4%
28	Chemicals and Allied Products	24,750	26,190	1,440	5.8%
30	Rubber and Misc. Plastics Products	7,700	8,580	880	11.4%
32	Stone, Clay and Glass Products	2,370	2,660	290	12.2%
33	Primary Metal Industries	4,570	4,600	30	0.7%
34	Fabricated Metal Products	12,780	12,920	140	1.1%
35	Industrial Machinery and Equipment	16,850	14,950	-1,900	-11.3%
36	Electronic and Other Electrical Equipment	6,750	6,280	-470	-7.0%
37	Transportation Equipment	18,040	15,930	-2,110	-11.7%
38	Instruments and Related Products	3,930	3,900	-30	-0.8%
39	Miscellaneous Manufacturing Industries	3,390	3,760	370	10.9%
	Transportation, Communications & Utilities	**49,740**	**54,820**	**5,080**	**10.2%**
40	Railroad Transportation	1,190	950	-240	-20.2%
41	Local and Interurban Transit	3,540	4,560	1,020	28.8%
42	Trucking and Warehousing	9,900	10,830	930	9.4%
45	Air Transportation	15,810	17,810	2,000	12.7%
47	Transportation Services	2,480	3,000	520	21.0%
48	Communications	9,270	9,860	590	6.4%
49	Utilities and Sanitary Services	6,180	6,290	110	1.8%
	Trade	**219,310**	**242,490**	**23,180**	**10.6%**
	Wholesale Trade	**55,950**	**60,160**	**4,210**	**7.5%**
50	Wholesale Trade, Durable Goods	31,680	33,480	1,800	5.7%
51	Wholesale Trade, Nondurable Goods	24,280	26,680	2,400	9.9%
	Retail Trade	**163,350**	**182,330**	**18,980**	**11.6%**
52	Bldg. Materials and Garden Supplies	6,460	7,220	760	11.8%
53	General Merchandise Stores	19,730	19,420	-310	-1.6%
54	Food Stores	26,660	28,130	1,470	5.5%
55	Auto Dealers and Service Stations	14,410	16,590	2,180	15.1%

56	Apparel and Accessories Stores	7,970	8,510	540	6.8%
57	Furniture and Home Furnishings Stores	7,310	8,250	940	12.9%
58	Eating and Drinking Places	60,330	69,560	9,230	15.3%
59	Miscellaneous Retail Stores	20,480	24,660	4,180	20.4%
	Finance, Insurance & Real Estate	**56,020**	**63,290**	**7,270**	**13.0%**
60	Depository Institutions	13,920	14,350	430	3.1%
61	Nondepository Institutions	6,600	8,000	1,400	21.2%
62	Security and Commodity Brokers	4,970	7,320	2,350	47.3%
63	Insurance Carriers	14,940	15,760	820	5.5%
64	Insurance Agents, Brokers and Services	4,270	5,330	1,060	24.8%
65	Real Estate	9,130	10,300	1,170	12.8%
67	Holding and Other Investment Offices	2,200	2,220	20	0.9%
	Services	**270,250**	**357,400**	**87,150**	**32.2%**
70	Hotels and Other Lodging Places	6,850	6,990	140	2.0%
72	Personal Services	10,730	11,850	1,120	10.4%
73	Business Services	69,590	107,890	38,300	55.0%
75	Auto Repair Services and Parking	8,590	10,210	1,620	18.9%
76	Miscellaneous Repair Services	2,240	2,360	120	5.4%
78	Motion Pictures	3,000	3,340	340	11.3%
79	Amusement and Recreation Services	16,340	22,900	6,560	40.1%
80	Private Health Services	75,780	91,000	15,220	20.1%
81	Legal Services	5,550	7,050	1,500	27.0%
82	Private Educational Services	10,320	11,470	1,150	11.1%
83	Social Services	19,000	26,290	7,290	38.4%
84	Museums, Botanical and Zoological Gardens	1,170	1,470	300	25.6%
86	Membership Organizations	15,830	20,860	5,030	31.8%
87	Engineering and Management Services	25,010	33,470	8,460	33.8%
	Government	**102,980**	**111,370**	**8,390**	**8.1%**
91	Federal Government	17,190	16,950	-240	-1.4%
43	U.S. Postal Service	6,830	6,810	-20	-0.3%
919	Federal Government, exc. P.O.	10,360	10,140	-220	-2.1%
92	State Government	17,580	18,260	680	3.9%
82	State Government Education	12,670	13,260	590	4.7%
929	State Government, except Educ. & Hospitals	4,910	5,000	90	1.8%
93	Local Government	68,220	76,150	7,930	11.6%
82	Local Government Education	39,090	43,050	3,960	10.1%
939	Local Government, except Educ. & Hospitals	29,130	33,100	3,970	13.6%
	Private Households	**2,090**	**1,550**	**-540**	**-25.8%**
	Nonfarm Self-Empl. & Unpaid Family Workers	**46,120**	**47,860**	**1,740**	**3.8%**

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, August 2003.

Cincinnati PMSA

Occupational Employment Projections by Major Occupational Group

Occupational Group	Employment 2000 Annual	2010 Projected	Change in Employment 2000-2010	Percent Change	Total Annual Openings
Total, All Occupations	940,220	1,074,550	134,330	14.3%	35,859
Management, Business and Financial Occupations	93,940	105,760	11,820	12.6%	2,859
Professional and Related Occupations	165,130	203,900	38,770	23.5%	7,026
Service Occupations	167,480	202,170	34,690	20.7%	8,854
Sales and Related Occupations	105,340	117,640	12,300	11.7%	4,561
Office and Administrative Support Occupations	162,850	177,320	14,470	8.9%	4,883
Farming, Fishing, and Forestry Occupations	1,230	1,310	80	6.5%	37
Construction and Extraction Occupations	43,000	49,940	6,940	16.1%	1,532
Installation, Maintenance, and Repair Occupations	38,140	41,630	3,490	9.2%	1,158
Production Occupations	86,670	87,440	770	0.9%	2,045
Transportation and Material Moving Occupations	76,440	87,440	11,000	14.4%	2,904

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, August 2003.

Cincinnati PMSA
Fastest Growing Occupations

Occupation Title	Employment Growth Rate 2000-2010	Annual Openings	Average Wage 2002
Computer Software Engineers, Applications	103.4%	455	$31.60
Computer Support Specialists	88.9%	352	$21.24
Network and Computer Systems Administrators	75.8%	158	$27.95
Computer Software Engineers, Systems Software	71.8%	122	$30.52
Network Systems and Data Communications Analysts	69.2%	57	$27.45
Database Administrators	66.7%	77	$28.90
Social and Human Service Assistants	58.2%	124	$11.31
Personal and Home Care Aides	54.8%	95	$9.30
Medical Assistants	51.3%	262	$11.46
Physician Assistants	50.0%	19	$32.64
Home Health Aides	47.9%	249	$9.45
Physical Therapist Aides	46.7%	12	$11.13
Fitness Trainers and Aerobics Instructors	45.3%	57	$11.85
Mental Health and Substance Abuse Social Workers	42.3%	38	$15.25
Medical Records and Health Information Technicians	42.2%	54	$12.76
Hazardous Materials Removal Workers	42.1%	14	$14.52
Computer Systems Analysts	41.2%	138	$30.23
Substance Abuse and Behavioral Disorder Counselors	38.7%	18	$13.83
Physical Therapist Assistants	38.7%	21	$17.22
Education Administrators, Preschool & Child Care Center/Program	38.5%	25	$16.64
Desktop Publishers	38.5%	15	$15.38
Security Guards	38.1%	536	$10.17
Computer and Information Systems Managers	37.4%	115	$39.80
Veterinary Technologists and Technicians	37.0%	17	$11.36
Interviewers, Except Eligibility and Loan	35.2%	91	$10.61
Veterinarians	34.6%	14	$30.38
Public Relations Managers	34.4%	16	$28.96
Personal Financial Advisors	34.1%	20	$24.11
Veterinary Assistants and Laboratory Animal Caretakers	34.1%	27	$8.68

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, August 2003.

Cincinnati PMSA
Occupations with the Most Annual Job Openings

Occupation Title	Annual Openings 2000-2010	Average Wage 2002
Retail Salespersons	1,422	$10.55
Cashiers	1,325	$7.82
Combined Food Preparation & Serving Workers, Inc. Fast Food	1,171	$7.24
Waiters and Waitresses	998	$7.10
Laborers and Freight, Stock, and Material Movers, Hand	769	$10.89
Office Clerks, General	622	$11.34
Packers and Packagers, Hand	612	$9.16
Registered Nurses	600	$22.12
Customer Service Representatives	594	$13.59
Security Guards	536	$10.17
Janitors & Cleaners, Except Maids & Housekeeping Cleaners	466	$9.99
Computer Software Engineers, Applications	455	$31.60
General and Operations Managers	442	$35.99
Stock Clerks and Order Fillers	431	$11.03
Nursing Aides, Orderlies, and Attendants	408	$10.37
Truck Drivers, Heavy and Tractor-Trailer	378	$16.53
Computer Support Specialists	352	$21.24
Food Preparation Workers	346	$8.65
Sales Rep., Wholesale/Mfg., Exc. Technical/Scientific Products	342	$26.42
First-Line Supervisors/Managers of Retail Sales Workers	318	$15.99
Licensed Practical and Licensed Vocational Nurses	309	$18.61
Executive Secretaries and Administrative Assistants	302	$16.08
Receptionists and Information Clerks	299	$10.52
Child Care Workers	270	$8.72
Landscaping and Groundskeeping Workers	263	$11.72
Medical Assistants	262	$11.46
Elementary School Teachers, Except Special Education	253	$44,811*
Home Health Aides	249	$9.45
Bookkeeping, Accounting, and Auditing Clerks	247	$13.67
Secretaries, Except Legal, Medical, and Executive	244	$12.50

* Average Annual Salary

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, August 2003.

Cincinnati PMSA
Occupational* Employment Projections Report, 2000-2010

Code	Occupational Title**	Employment 2000 Annual	2010 Projected	Change in Employment 2000-2010	Percent Change	Total Annual Openings	Average Wage 2002	Education Training Level+
00-0000	Total, All Occupations	940,220	1,074,550	134,330	14.3%	35,859	NA	NA
11-0000	Management Occupations	59,760	66,700	6,940	11.6%	1,707	NA	NA
11-1011	Chief Executives	3,170	3,650	480	15.1%	148	$55.52	4
11-1021	General and Operations Managers	15,270	17,120	1,850	12.1%	442	$35.99	4
11-2011	Advertising and Promotions Managers	560	720	160	28.6%	24	$30.30	4
11-2021	Marketing Managers	1,280	1,590	310	24.2%	49	$35.21	4
11-2022	Sales Managers	2,690	3,400	710	26.4%	110	$36.70	4
11-2031	Public Relations Managers	320	430	110	34.4%	16	$28.96	4
11-3011	Administrative Services Managers	2,040	2,490	450	22.1%	78	$25.15	4
11-3021	Computer and Information Systems Managers	2,110	2,900	790	37.4%	115	$39.80	4
11-3031	Financial Managers	3,410	3,950	540	15.8%	106	$35.10	4
11-3040	Human Resources Managers	1,350	1,450	100	7.4%	33	$30.28	4
11-3051	Industrial Production Managers	1,800	1,760	-40	-2.2%	29	$33.68	5
11-3061	Purchasing Managers	960	900	-60	-6.3%	30	$30.43	4
11-3071	Transportation, Storage, & Distribution Managers	1,150	1,300	150	13.0%	34	$28.47	8
11-9011	Farm, Ranch, and Other Agricultural Managers	260	230	-30	-11.5%	3	$17.46	4
11-9012	Farmers and Ranchers	4,190	3,740	-450	-10.7%	24	NA	9
11-9021	Construction Managers	1,670	1,920	250	15.0%	52	$29.94	5
11-9031	Education Admin., Pre & Child Care Center/Prog.	390	540	150	38.5%	25	$16.64	4
11-9032	Education Admin., Elem. & Secondary School	1,440	1,560	120	8.3%	49	$70,143++	4
11-9033	Education Administrators, Postsecondary	470	510	40	8.5%	16	$37.64	4
11-9041	Engineering Managers	1,810	1,700	-110	-6.1%	30	$43.21	4
11-9051	Food Service Managers	2,540	2,860	320	12.6%	62	$17.54	8
11-9061	Funeral Directors	240	260	20	8.3%	6	$20.57	6
11-9081	Lodging Managers	390	380	-10	-2.6%	5	$18.15	8
11-9111	Medical and Health Services Managers	1,800	2,260	460	25.6%	77	$29.72	4
11-9121	Natural Sciences Managers	280	300	20	7.1%	7	$42.44	4
11-9141	Property, Real Estate, & Community Assn Mgrs	1,060	1,220	160	15.1%	33	$21.57	5
11-9151	Social and Community Service Managers	710	870	160	22.5%	29	$23.00	5

11-9199	Managers, All Other	6,240	6,480	240	3.8%	135	NA	8
13-0000	Business and Financial Operations Occupations	34,180	39,060	4,880	14.3%	1,152	NA	NA
13-1022	Wholesale & Retail Buyers, Ex. Farm Products	1,020	1,020	0	0.0%	31	$20.50	5
13-1023	Purchasing Agents, Ex. Whole., Retail, & Farm	1,880	1,970	90	4.8%	46	$23.34	5
13-1031	Claims Adjusters, Examiners, and Investigators	1,220	1,440	220	18.0%	36	$22.37	9
13-1041	Compl. Off., Ex. Agric, Con, Hlth/Safety, & Trans.	590	660	70	11.9%	22	$22.74	9
13-1051	Cost Estimators	1,910	2,210	300	15.7%	72	$22.86	5
13-1071	Empl., Recruitment, & Placement Specialists	1,230	1,410	180	14.6%	42	$19.52	5
13-1072	Comp., Benefits, & Job Analysis Specialists	570	650	80	14.0%	19	$23.55	5
13-1073	Training and Development Specialists	1,800	2,100	300	16.7%	65	$21.69	5
13-1111	Management Analysts	2,620	3,120	500	19.1%	73	$29.02	4
13-1121	Meeting and Convention Planners	150	180	30	20.0%	6	$17.37	5
13-1199	Business Operations Specialists, All Other	7,070	8,170	1,100	15.6%	290	NA	5
13-2011	Accountants and Auditors	6,060	6,850	790	13.0%	169	$23.99	5
13-2021	Appraisers and Assessors of Real Estate	270	340	70	25.9%	15	$26.17	7
13-2031	Budget Analysts	300	340	40	13.3%	10	$26.52	5
13-2041	Credit Analysts	270	300	30	11.1%	8	$21.88	5
13-2051	Financial Analysts	760	950	190	25.0%	29	$26.23	5
13-2052	Personal Financial Advisors	440	590	150	34.1%	20	$24.11	5
13-2053	Insurance Underwriters	670	730	60	9.0%	16	$25.46	5
13-2061	Financial Examiners	290	320	30	10.3%	9	$28.93	5
13-2072	Loan Officers	1,590	1,730	140	8.8%	46	$26.65	5
13-2081	Tax Examiners, Collectors, & Revenue Agents	1,420	1,540	120	8.5%	50	$19.28	5
13-2082	Tax Preparers	310	330	20	6.5%	8	$14.95	10
13-2099	Financial Specialists, All Other	1,460	1,790	330	22.6%	62	NA	5
15-0000	Computer and Mathematical Occupations	20,460	33,880	13,420	65.6%	1,513	NA	NA
15-1021	Computer Programmers	2,700	2,910	210	7.8%	78	$26.84	5
15-1031	Computer Software Engineers, Applications	4,130	8,400	4,270	103.4%	455	$31.60	5
15-1032	Comp. Software Engineers, Systems Software	1,560	2,680	1,120	71.8%	122	$30.52	5
15-1041	Computer Support Specialists	3,780	7,140	3,360	88.9%	352	$21.24	6
15-1051	Computer Systems Analysts	2,770	3,910	1,140	41.2%	138	$30.23	5
15-1061	Database Administrators	1,080	1,800	720	66.7%	77	$28.90	5
15-1071	Network and Computer Systems Administrators	1,980	3,480	1,500	75.8%	158	$27.95	5
15-1081	Network Systems & Data Comm. Analysts	780	1,320	540	69.2%	57	$27.45	5
15-1099	Computer Specialists, All Other	1,260	1,780	520	41.3%	63	NA	7
15-2011	Actuaries	130	120	-10	-7.7%	2	$36.24	4

15-2031	Operations Research Analysts	140	140	0	0.0%	5	$22.34	3
15-2041	Statisticians	110	120	10	9.1%	2	$24.98	3
17-0000	Architecture and Engineering Occupations	19,420	20,180	760	3.9%	482	NA	NA
17-1011	Architects, Except Landscape and Naval	920	1,080	160	17.4%	21	$30.71	5
17-1022	Surveyors	170	180	10	5.9%	6	$21.28	5
17-2011	Aerospace Engineers	220	210	-10	-4.5%	6	NA	5
17-2041	Chemical Engineers	270	280	10	3.7%	6	$34.49	5
17-2051	Civil Engineers	790	830	40	5.1%	16	$29.89	5
17-2061	Computer Hardware Engineers	230	290	60	26.1%	9	$25.28	5
17-2071	Electrical Engineers	1,210	1,400	190	15.7%	41	$29.28	5
17-2072	Electronics Engineers, Except Computer	430	460	30	7.0%	11	$29.96	5
17-2081	Environmental Engineers	360	460	100	27.8%	17	$30.34	5
17-2111	Heath & Safety Engineers, Ex. Mining Safety	330	380	50	15.2%	11	$28.56	5
17-2112	Industrial Engineers	1,360	1,290	-70	-5.1%	23	$29.03	5
17-2131	Materials Engineers	200	180	-20	-10.0%	4	$33.00	5
17-2141	Mechanical Engineers	1,910	2,000	90	4.7%	65	$29.35	5
17-2199	Engineers, All Other	3,390	2,840	-550	-16.2%	68	NA	5
17-3011	Architectural and Civil Drafters	500	590	90	18.0%	24	$17.94	7
17-3012	Electrical and Electronics Drafters	310	400	90	29.0%	18	$17.91	7
17-3013	Mechanical Drafters	570	660	90	15.8%	26	$20.68	7
17-3022	Civil Engineering Technicians	330	360	30	9.1%	10	$20.14	6
17-3023	Electrical & Electronic Engineering Technicians	1,200	1,240	40	3.3%	28	$21.37	6
17-3024	Electro-Mechanical Technicians	260	280	20	7.7%	7	$20.85	6
17-3025	Environmental Engineering Technicians	130	160	30	23.1%	6	$17.49	6
17-3026	Industrial Engineering Technicians	580	620	40	6.9%	16	$21.31	6
17-3027	Mechanical Engineering Technicians	500	630	130	26.0%	23	$19.17	6
17-3031	Surveying and Mapping Technicians	270	330	60	22.2%	15	$15.47	10
17-3099	Drafters, Engin., & Mapping Tech., All Other	2,740	2,760	20	0.7%	61	NA	6
19-0000	Life, Physical, and Social Science Occupations	8,210	9,430	1,220	14.9%	351	NA	NA
19-1010	Agricultural and Food Scientists	120	110	-10	-8.3%	4	$29.24	5
19-1022	Microbiologists	160	180	20	12.5%	8	$25.14	2
19-1042	Medical Scientists, Except Epidemiologists	180	200	20	11.1%	6	NA	2
19-1099	Life Scientists, All Other	490	540	50	10.2%	23	NA	5
19-2031	Chemists	1,100	1,240	140	12.7%	49	$26.14	5
19-2041	Environmental Scientists/Specialists, Inc. Health	410	460	50	12.2%	18	$25.77	5
19-2099	Physical Scientists, All Other	210	220	10	4.8%	10	NA	5

19-3021	Market Research Analysts	880	1,020	140	15.9%	33	$29.73	5
19-3022	Survey Researchers	1,020	1,360	340	33.3%	57	$10.87	5
19-3031	Clinical, Counseling, and School Psychologists	970	1,080	110	11.3%	34	$25.44	2
19-3051	Urban and Regional Planners	140	170	30	21.4%	7	$26.07	3
19-3099	Social Scientists & Related Workers, All Other	210	230	20	9.5%	7	NA	3
19-4021	Biological Technicians	320	350	30	9.4%	11	NA	6
19-4031	Chemical Technicians	730	790	60	8.2%	23	$17.58	6
19-4091	Environ. Science & Protection Tech., Inc. Health	160	190	30	18.8%	9	$17.71	6
19-4099	Life, Physical, & Social Science Tech., All Other	570	690	120	21.1%	33	NA	6
21-0000	Community and Social Services Occupations	13,240	17,680	4,440	33.5%	689	NA	NA
21-1011	Substance Abuse & Behavioral Dis. Counselors	310	430	120	38.7%	18	$13.83	3
21-1012	Educational, Vocational, & School Counselors	810	980	170	21.0%	34	$22.75	3
21-1014	Mental Health Counselors	420	510	90	21.4%	18	$14.95	3
21-1015	Rehabilitation Counselors	820	970	150	18.3%	32	$15.65	3
21-1021	Child, Family, and School Social Workers	1,630	2,110	480	29.4%	66	$15.20	5
21-1022	Medical and Public Health Social Workers	820	1,060	240	29.3%	33	$17.53	5
21-1023	Mental Health & Substance Abuse Social Work.	710	1,010	300	42.3%	38	$15.25	3
21-1091	Health Educators	300	370	70	23.3%	11	$16.49	3
21-1092	Probation Officers & Correct. Treatment Spec.	280	330	50	17.9%	9	NA	5
21-1093	Social and Human Service Assistants	1,700	2,690	990	58.2%	124	$11.31	10
21-2011	Clergy	3,270	4,060	790	24.2%	168	NA	3
21-2021	Directors, Religious Activities and Education	850	1,060	210	24.7%	35	$15.03	5
21-9099	Counselors, Social, & Religious Work., All Other	1,170	1,410	240	20.5%	44	NA	5
23-0000	Legal Occupations	5,850	6,890	1,040	17.8%	157	NA	NA
23-1011	Lawyers	2,840	3,440	600	21.1%	79	$41.94	1
23-1021	Admin. Law Judges, Adjudicators, & Hearing Off.	110	110	0	0.0%	3	$32.90	4
23-1023	Judges, Magistrate Judges, and Magistrates	400	390	-10	-2.5%	11	$29.98	4
23-2011	Paralegals and Legal Assistants	1,100	1,420	320	29.1%	39	$17.31	6
23-2092	Law Clerks	540	620	80	14.8%	13	$12.06	5
23-2093	Title Examiners, Abstractors, and Searchers	220	220	0	0.0%	2	$16.90	10
23-2099	Legal Support Workers, All Other	350	350	0	0.0%	3	NA	5
23-9099	Legal and Related Workers, All Other	210	260	50	23.8%	7	NA	5
25-0000	Education, Training, and Library Occupations	42,460	48,850	6,390	15.0%	1,534	NA	NA
25-1011	Business Teachers, Postsecondary	330	400	70	21.2%	16	$68,141++	2
25-1021	Computer Science Teachers, Postsecondary	140	160	20	14.3%	6	$64,488++	2
25-1022	Mathematical Science Teachers, Postsecondary	240	290	50	20.8%	12	$54,472++	2

25-1032	Engineering Teachers, Postsecondary	190	220	30	15.8%	8	NA	2
25-1042	Biological Science Teachers, Postsecondary	210	250	40	19.0%	10	$70,667++	2
25-1052	Chemistry Teachers, Postsecondary	110	130	20	18.2%	5	$66,202++	2
25-1066	Psychology Teachers, Postsecondary	150	180	30	20.0%	7	$61,088++	2
25-1071	Health Specialties Teachers, Postsecondary	800	920	120	15.0%	34	NA	2
25-1072	Nursing Instructors & Teachers, Postsecondary	230	270	40	17.4%	10	$55,030++	3
25-1081	Education Teachers, Postsecondary	300	350	50	16.7%	13	$53,366++	2
25-1121	Art, Drama, and Music Teachers, Postsecondary	370	440	70	18.9%	17	$53,285++	2
25-1122	Communications Teachers, Postsecondary	170	200	30	17.6%	8	$46,121++	2
25-1123	English Language & Literature Teachers, Post.	370	440	70	18.9%	17	$44,933++	2
25-1124	Foreign Language & Literature Teachers, Post.	180	220	90	22.2%	9	$50,352++	2
25-1125	History Teachers, Postsecondary	140	160	20	14.3%	6	$53,061++	2
25-1126	Philosophy & Religion Teachers, Postsecondary	130	160	30	23.1%	7	$53,630++	2
25-1191	Graduate Teaching Assistants	110	140	30	27.3%	6	$27,743++	5
25-1194	Vocational Education Teachers, Postsecondary	580	690	110	19.0%	27	$16.77	8
25-1199	Postsecondary Teachers, All Other	810	960	150	18.5%	37	NA	2
25-2011	Preschool Teachers, Except Special Education	2,130	2,530	400	18.8%	67	$10.34	5
25-2012	Kindergarten Teachers, Ex. Special Education	790	870	80	10.1%	18	$43,360++	5
25-2021	Elementary School Teachers, Ex.Special Ed.	7,730	8,500	770	10.0%	253	$44,811++	5
25-2022	Middle School Teachers, Ex. Special & Voc. Ed.	3,450	3,800	350	10.1%	114	$43,726++	5
25-2031	Secondary Sch. Teachers, Ex. Spec. & Voc. Ed.	4,970	5,660	690	13.9%	220	$47,166++	5
25-2041	Special Ed. Teachers, Pre./Kinder./Elem. Sch.	1,430	1,860	430	30.1%	61	$43,959++	5
25-2042	Special Education Teachers, Middle School	520	620	100	19.2%	17	$42,122++	5
25-2043	Special Education Teachers, Secondary School	780	930	150	19.2%	25	$39,413++	5
25-3011	Adult Literacy, Remedial Ed., & GED Teachers	340	390	50	14.7%	9	$15.44	5
25-3021	Self-Enrichment Education Teachers	1,040	1,280	240	23.1%	34	$12.01	8
25-3999	Teachers, Prim., Secondary, & Adult, All Other	4,700	5,400	700	14.9%	117	NA	5
25-4010	Archivists, Curators, and Museum Technicians	110	130	20	18.2%	4	$17.26	3
25-4021	Librarians	570	600	30	5.3%	15	$22.72	3
25-4031	Library Technicians	420	500	80	19.0%	27	$14.78	11
25-9031	Instructional Coordinators	460	570	110	23.9%	18	$21.91	3
25-9041	Teacher Assistants	4,950	5,990	1,040	21.0%	207	$21,991++	11
25-9199	Lib., Museum, Training, & Other Ed. Work., AO	380	450	10	18.4%	13	NA	5
27-0000	Arts, Design, Entertainment, Sports, & Media Occ.	12,880	14,970	2,090	16.2%	450	NA	NA
27-1011	Art Directors	260	320	20	23.1%	11	$28.62	4
27-1013	Fine Artists, Inc. Painters, Sculptors, & Illustrators	130	140	10	7.7%	4	$19.49	9

27-1014	Multi-Media Artists and Animators	530	690	160	30.2%	27	$20.12	5
27-1021	Commercial and Industrial Designers	200	220	20	10.0%	4	$24.30	5
27-1023	Floral Designers	530	600	70	13.2%	12	$11.43	10
27-1024	Graphic Designers	1,710	2,050	340	19.9%	51	$19.36	5
27-1025	Interior Designers	300	320	20	6.7%	5	$19.28	5
27-1026	Merchandise Displayers and Window Trimmers	480	500	20	4.2%	7	$12.93	10
27-1099	Art and Design Workers, All Other	480	520	40	8.3%	12	NA	5
27-2011	Actors	140	170	30	21.4%	6	$25,491++	9
27-2012	Producers and Directors	430	520	90	20.9%	17	$45,025++	4
27-2021	Athletes and Sports Competitors	190	240	50	26.3%	9	$35,039++	9
27-2022	Coaches and Scouts	350	410	60	17.1%	13	$29,093++	9
27-2031	Dancers	160	150	-10	-6.3%	3	NA	9
27-2041	Music Directors and Composers	350	460	110	31.4%	18	$42,508++	4
27-2042	Musicians and Singers	1,140	1,450	310	27.2%	53	$86,447++	9
27-3010	Announcers	220	200	-20	-9.1%	3	$16.40	9
27-3020	News Analysts, Reporters and Correspondents	550	490	-60	-10.9%	18	$17.83	9
27-3031	Public Relations Specialists	720	960	240	33.3%	36	$21.03	$5.00
27-3041	Editors	810	900	90	11.1%	35	$20.50	5
27-3042	Technical Writers	420	490	70	16.7%	20	$23.26	5
27-3043	Writers and Authors	710	840	130	18.3%	25	$21.89	5
27-3091	Interpreters and Translators	150	170	20	13.3%	5	$13.86	9
27-3099	Media and Communication Workers, All Other	140	160	20	14.3%	5	NA	9
27-4011	Audio and Video Equipment Technicians	100	130	30	30.0%	6	$13.92	9
27-4012	Broadcast Technicians	190	190	0	0.0%	6	$15.26	7
27-4021	Photographers	680	730	50	7.4%	19	$11.49	9
27-4031	Camera Operators, TV, Video, & Motion Picture	130	140	10	7.7%	4	$17.63	10
27-4032	Film and Video Editors	140	180	40	28.6%	7	$20.59	5
29-0000	Healthcare Practitioners and Technical Occupations	42,610	52,020	9,410	22.1%	1,850	NA	NA
29-1011	Chiropractors	210	240	30	14.3%	7	$45.93	1
29-1020	Dentists	1,050	1,120	70	6.7%	31	$54.84	1
29-1031	Dietitians and Nutritionists	460	520	60	13.0%	18	$20.49	5
29-1041	Optometrists	240	300	60	25.0%	10	$51.21	1
29-1051	Pharmacists	1,660	2,040	380	22.9%	88	$35.38	1
29-1061	Anesthesiologists	200	240	40	20.0%	7	$61.25	1
29-1062	Family and General Practitioners	1,520	1,770	250	16.4%	48	$58.05	1

29-1063	Internists, General	350	410	60	17.1%	11	$64.44	1
29-1064	Obstetricians and Gynecologists	310	380	70	22.6%	12	$69.86	1
29-1065	Pediatricians, General	220	270	50	22.7%	8	$58.67	1
29-1066	Psychiatrists	130	150	20	15.4%	4	$63.07	1
29-1067	Surgeons	350	420	70	20.0%	12	$66.03	1
29-1069	Physicians and Surgeons, All Other	790	940	150	19.0%	27	NA	1
29-1071	Physician Assistants	260	390	130	50.0%	19	$32.64	5
29-1111	Registered Nurses	14,790	17,800	3,010	20.4%	600	$22.12	6
29-1122	Occupational Therapists	540	650	110	20.4%	24	$24.43	5
29-1123	Physical Therapists	710	910	200	28.2%	38	$28.55	3
29-1125	Recreational Therapists	170	180	10	5.9%	5	$16.93	5
29-1126	Respiratory Therapists	440	570	130	29.5%	24	$18.68	6
29-1127	Speech-Language Pathologists	560	750	100	33.9%	33	$25.42	3
29-1131	Veterinarians	260	350	90	34.6%	14	$30.38	1
29-1199	Health Diagnosing & Treating Practitioners, AO	460	600	140	30.4%	24	NA	1
29-2011	Medical and Clinical Laboratory Technologists	790	890	100	12.7%	29	$20.10	5
29-2012	Medical and Clinical Laboratory Technicians	620	700	80	12.9%	23	$14.31	6
29-2021	Dental Hygienists	770	1,010	240	31.2%	35	$25.72	6
29-2031	Cardiovascular Technologists and Technicians	240	310	70	29.2%	12	$17.93	6
29-2032	Diagnostic Medical Sonographers	190	230	40	21.1%	8	$22.03	6
29-2034	Radiologic Technologists and Technicians	1,100	1,290	190	17.3%	43	$18.41	6
29-2041	Emergency Medical Technicians & Paramedics	1,110	1,470	360	32.4%	64	$13.96	7
29-2051	Dietetic Technicians	150	190	40	26.7%	8	$14.34	10
29-2052	Pharmacy Technicians	1,670	2,200	530	31.7%	96	$10.60	10
29-2055	Surgical Technologists	330	420	90	27.3%	18	$14.48	7
29-2056	Veterinary Technologists and Technicians	270	370	100	37.0%	17	$11.36	6
29-2061	Licensed Practical & Licensed Vocat. Nurses	6,190	7,690	1,500	24.2%	309	$18.61	7
29-2071	Medical Records & Health Info. Technicians	830	1,180	180	42.2%	54	$12.76	6
29-2081	Opticians, Dispensing	460	520	60	13.0%	14	$14.64	9
29-9010	Occupational Health & Safety Specialists & Tech.	320	410	90	28.1%	17	$22.60	5
29-9099	Healthcare Practitioners & Tech. Workers, AO	1,360	1,560	200	14.7%	23	NA	6
31-0000	Healthcare Support Occupations	22,910	30,690	7,780	34.0%	1,171	NA	NA
31-1011	Home Health Aides	4,110	6,080	1,970	47.9%	249	$9.45	11
31-1012	Nursing Aides, Orderlies, and Attendants	10,490	13,230	2,740	26.1%	408	$10.37	11
31-2011	Occupational Therapist Assistants	200	260	60	30.0%	12	$17.32	6
31-2021	Physical Therapist Assistants	310	430	120	38.7%	21	$17.22	6

31-2022	Physical Therapist Aides	150	220	70	46.7%	12	$11.13	11
31-9011	Massage Therapists	200	250	50	25.0%	10	$17.66	7
31-9091	Dental Assistants	1,580	2,080	500	31.6%	78	$12.75	10
31-9092	Medical Assistants	3,370	5,100	1,730	51.3%	262	$11.46	10
31-9093	Medical Equipment Preparers	190	210	20	10.5%	7	$11.11	11
31-9094	Medical Transcriptionists	580	710	130	22.4%	28	$13.22	7
31-9095	Pharmacy Aides	400	500	100	25.0%	21	$8.82	11
31-9096	Vet. Assistants & Laboratory Animal Caretakers	440	590	150	34.1%	27	$8.68	11
31-9099	Healthcare Support Workers, All Other	760	880	120	15.8%	32	NA	11
33-0000	Protective Service Occupations	20,390	26,110	5,720	28.1%	1,160	NA	NA
33-1012	First-Line Superv./Mgrs of Police & Detectives	600	690	90	15.0%	25	$27.66	8
33-1021	FL Sup/Mgrs of Fire Fighting & Prev. Workers	450	500	50	11.1%	19	$24.67	8
33-1099	First-Line Sup/Mgrs, Protective Serv. Work., AO	390	500	110	28.2%	23	NA	8
33-2011	Fire Fighters	2,710	3,020	310	11.4%	101	$14.84	9
33-3012	Correctional Officers and Jailers	1,450	1,770	320	22.1%	67	$15.30	10
33-3021	Detectives and Criminal Investigators	430	520	90	20.9%	19	$24.73	8
33-3051	Police and Sheriff's Patrol Officers	3,180	4,010	830	26.1%	150	$21.25	9
33-9021	Private Detectives and Investigators	1,000	1,120	120	12.0%	40	$16.38	8
33-9032	Security Guards	8,190	11,310	3,120	38.1%	536	$10.17	11
33-9091	Crossing Guards	350	380	30	8.6%	15	$8.79	11
33-9099	Protective Service Workers, All Other	1,160	1,450	290	25.0%	117	NA	11
35-0000	Food Preparation and Serving Related Occupations	69,010	78,900	9,890	14.3%	4,021	NA	NA
35-1011	Chefs and Head Cooks	590	650	60	10.2%	24	$13.87	7
35-1012	FL Sup/Mgrs of Food Prep. & Serving Workers	5,410	5,980	570	10.5%	194	$11.00	8
35-2011	Cooks, Fast Food	5,550	5,440	-110	-2.0%	158	$7.83	11
35-2012	Cooks, Institution and Cafeteria	3,290	3,480	190	5.8%	113	$9.71	9
35-2014	Cooks, Restaurant	3,650	4,420	770	21.1%	181	$9.40	9
35-2015	Cooks, Short Order	1,150	1,240	90	7.8%	42	$8.95	11
35-2021	Food Preparation Workers	6,380	7,380	1,000	15.7%	346	$8.65	11
35-3011	Bartenders	4,570	5,180	610	13.3%	241	$6.85	11
35-3021	Comb. Food Prep. & Serv. Work, Inc. Fast Food	12,760	16,660	3,900	30.6%	1,171	$7.24	11
35-3022	Counter Attend., Café/Food Concess/Coffee Sh.	2,360	2,740	380	16.1%	221	$7.20	11
35-3031	Waiters and Waitresses	13,190	15,750	2,560	19.4%	998	$7.10	11
35-3041	Food Servers, Nonrestaurant	1,130	1,210	80	7.1%	58	$8.12	11
35-9011	Dining Room & Cafeteria Attend. & Bar Helpers	2,930	2,750	-180	-6.1%	99	$7.39	11

35-9021	Dishwashers	2,770	2,490	-280	-10.1%	104	$7.62	11
35-9031	Hosts & Hostesses, Rest./Lounge/Coffee Shop	2,330	2,620	290	12.4%	98	$7.53	11
35-9099	Food Prep. & Serving Related Workers, AO	940	900	-40	-4.3%	35	NA	11
37-0000	Building & Grounds Cleaning & Maintenance Occup.	28,530	33,140	4,610	16.2%	1,051	NA	NA
37-1011	FL Sup/Mgrs of Housekping & Janitorial Workers	1,240	1,370	130	10.5%	47	$14.48	8
37-1012	FL Sup/Mgrs of Lndscap./Lawn Ser/Groundskp	690	750	60	8.7%	10	$17.31	8
37-2011	Janitors & Cleaners, Ex. Maids/Hsekping Clean.	14,320	16,390	2,070	14.5%	466	$9.99	11
37-2012	Maids and Housekeeping Cleaners	5,720	6,680	960	16.8%	220	$8.76	11
37-2021	Pest Control Workers	100	130	30	30.0%	5	NA	10
37-3011	Landscaping and Groundskeeping Workers	4,580	6,060	1,480	32.3%	263	$11.72	11
37-3012	Pesticide Handlers/Sprayers/Applicators, Veg.	150	170	20	13.3%	6	$13.08	10
37-3013	Tree Trimmers and Pruners	130	140	10	7.7%	4	$11.14	11
37-9099	Building & Grounds Cleaning & Maint. Work., AO	570	680	110	19.3%	22	NA	11
39-0000	Personal Care and Service Occupations	26,640	33,330	6,690	25.1%	1,451	NA	NA
39-1021	First-Line Sup/Mgrs of Personal Serv. Workers	1,560	1,910	350	22.4%	78	$14.88	8
39-2021	Nonfarm Animal Caretakers	860	1,060	200	23.3%	38	$9.22	11
39-3031	Ushers, Lobby Attendants, and Ticket Takers	770	900	130	16.9%	74	$7.50	11
39-3093	Locker Room/Coatroom/Dressing Rm Attendants	170	190	20	11.8%	8	$7.94	8
39-4021	Funeral Attendants	150	180	30	20.0%	6	$8.56	11
39-5011	Barbers	240	240	0	0.0%	7	$11.84	7
39-5012	Hairdressers, Hairstylists, and Cosmetologists	3,960	4,310	350	8.8%	132	$11.85	7
39-5092	Manicurists and Pedicurists	270	340	70	25.9%	14	$10.53	7
39-5094	Skin Care Specialists	240	280	40	16.7%	10	$12.52	7
39-6011	Baggage Porters and Bellhops	140	130	-10	-7.1%	5	$6.96	11
39-6021	Tour Guides and Escorts	120	130	10	8.3%	5	$9.64	10
39-9011	Child Care Workers	5,290	6,430	1,140	21.6%	270	$8.72	11
39-9021	Personal and Home Care Aides	1,350	2,090	740	54.8%	95	$9.30	11
39-9031	Fitness Trainers and Aerobics Instructors	860	1,250	390	45.3%	57	$11.85	7
39-9032	Recreation Workers	1,540	1,880	340	22.1%	66	$8.89	5
39-9041	Residential Advisors	240	290	50	20.8%	10	$9.71	10
39-9099	Personal Care and Service Workers, All Other	700	860	160	22.9%	38	NA	10
41-0000	Sales and Related Occupations	105,340	117,640	12,300	11.7%	4,561	NA	NA
41-1011	First-Line Superv./Mgrs of Retail Sales Workers	12,910	14,230	1,320	10.2%	318	$15.99	8
41-1012	First-Line Sup./Mgrs of Non-Retail Sales Workers	2,640	2,800	160	6.1%	55	$29.69	8
41-2011	Cashiers	22,680	25,650	2,970	13.1%	1,325	$7.82	11

41-2021	Counter and Rental Clerks	3,020	3,610	590	19.5%	196	$9.74	11
41-2022	Parts Salespersons	2,200	2,210	10	0.5%	66	$11.18	10
41-2031	Retail Salespersons	28,070	31,620	3,550	12.6%	1,422	$10.55	11
41-3011	Advertising Sales Agents	920	1,050	130	14.1%	32	$22.02	10
41-3021	Insurance Sales Agents	3,780	3,590	-190	-5.0%	96	$22.17	5
41-3031	Securities/Commodities/Fin. Serv. Sales Agents	2,000	2,600	600	30.0%	76	$33.35	5
41-3041	Travel Agents	600	570	-30	-5.0%	15	$12.60	7
41-4011	Sales Rep., Wholesale & Mfg, Tech./Sci. Prod.	3,060	3,210	150	4.9%	98	$32.56	10
41-4012	Sales Rep., Wholesale/Mfg, Ex. Tech./Sci. Prod.	10,740	11,240	500	4.7%	342	$26.42	10
41-9011	Demonstrators and Product Promoters	460	550	90	19.6%	24	$15.73	10
41-9021	Real Estate Brokers	250	270	20	8.0%	6	$36.10	8
41-9022	Real Estate Sales Agents	910	970	60	6.6%	22	$21.29	7
41-9031	Sales Engineers	670	720	50	7.5%	22	$32.72	5
41-9041	Telemarketers	4,190	5,160	970	23.2%	183	$10.44	11
41-9091	Door-To-Door Sales, News/St. Vendors, & Rel.	790	830	40	5.1%	24	$15.28	11
41-9099	Sales and Related Workers, All Other	5,050	6,130	1,080	21.4%	219	NA	10
43-0000	Office and Administrative Support Occupations	162,850	177,320	14,470	8.9%	4,883	NA	NA
43-1011	First-Line Sup/Mgrs of Office & Admin. Support	8,890	9,610	720	8.1%	244	$19.06	8
43-2011	Switchboard Operators, Inc. Answering Service	1,450	1,200	-250	-17.2%	43	$10.97	11
43-2021	Telephone Operators	290	230	-60	-20.7%	8	NA	11
43-3011	Bill and Account Collectors	3,920	4,680	760	19.4%	174	$13.20	11
43-3021	Billing & Posting Clerks & Machine Operators	3,690	4,000	310	8.4%	121	$13.37	11
43-3031	Bookkeeping, Accounting, and Auditing Clerks	10,480	10,960	480	4.6%	247	$13.67	10
43-3051	Payroll and Timekeeping Clerks	2,160	2,120	-40	-1.9%	62	$16.08	11
43-3061	Procurement Clerks	520	470	-50	-9.6%	12	$13.75	11
43-3071	Tellers	2,650	2,390	-260	-9.8%	127	$10.03	11
43-4011	Brokerage Clerks	290	330	40	13.8%	8	$17.27	10
43-4021	Correspondence Clerks	360	370	10	2.8%	12	$11.55	11
43-4031	Court, Municipal, and License Clerks	620	700	80	12.9%	18	$13.00	11
43-4041	Credit Authorizers, Checkers, and Clerks	900	900	0	0.0%	8	$14.20	11
43-4051	Customer Service Representatives	14,670	19,370	4,700	32.0%	594	$13.59	10
43-4061	Eligibility Interviewers, Government Programs	620	540	-80	-12.9%	18	$15.45	10
43-4071	File Clerks	1,610	1,720	110	6.8%	62	$10.58	11
43-4081	Hotel, Motel, and Resort Desk Clerks	1,200	1,420	220	18.3%	74	$8.47	11
43-4111	Interviewers, Except Eligibility and Loan	1,620	2,190	570	35.2%	91	$10.61	11
43-4121	Library Assistants, Clerical	650	790	140	21.5%	43	$9.61	11

43-4131	Loan Interviewers and Clerks	940	700	-240	-25.5%	6	$14.27	11
43-4141	New Accounts Clerks	370	380	10	2.7%	9	$10.89	8
43-4151	Order Clerks	2,790	2,430	-360	-12.9%	59	$12.68	11
43-4161	Human Resources Assis., Ex. Payroll & Timekp	1,190	1,360	170	14.3%	44	$14.66	11
43-4171	Receptionists and Information Clerks	6,790	8,280	1,490	21.9%	299	$10.52	11
43-4181	Reservation/Trans. Ticket Agents & Travel Clerks	4,590	4,750	160	3.5%	140	NA	11
43-4999	Financial, Info., & Record Clerks, All Other	1,710	1,950	240	14.0%	47	NA	11
43-5011	Cargo and Freight Agents	300	310	10	3.3%	7	$17.36	10
43-5021	Couriers and Messengers	700	650	-50	-7.1%	19	$10.01	11
43-5031	Police, Fire, and Ambulance Dispatchers	670	780	110	16.4%	22	$15.30	10
43-5032	Dispatchers, Except Police, Fire, & Ambulance	1,150	1,350	200	17.4%	39	$14.78	10
43-5041	Meter Readers, Utilities	310	210	-100	-32.3%	8	$15.10	11
43-5051	Postal Service Clerks	200	200	0	0.0%	4	$19.07	11
43-5052	Postal Service Mail Carriers	1,710	1,770	60	3.5%	58	$18.72	11
43-5053	Postal Service Mail Sorters/Proc/Proc Mach. Op.	2,910	2,810	-100	-3.4%	64	$16.70	11
43-5061	Production, Planning, and Expediting Clerks	2,280	2,480	200	8.8%	58	$15.80	11
43-5071	Shipping, Receiving, and Traffic Clerks	6,150	6,530	380	6.2%	162	$12.46	11
43-5081	Stock Clerks and Order Fillers	12,130	12,050	-80	-0.7%	431	$11.03	11
43-5111	Weighers/Meas./Checkers/Samplers, Recordkp	510	560	50	9.8%	17	$11.93	11
43-5199	Material Rec./Sched./Dispatch/Distrib. Work, AO	930	1,280	350	37.6%	68	NA	11
43-6011	Executive Secretaries & Admin. Assistants	10,370	11,630	1,260	12.2%	302	$16.08	10
43-6012	Legal Secretaries	1,200	1,370	170	14.2%	37	$14.96	7
43-6013	Medical Secretaries	2,370	2,730	360	15.2%	76	$11.50	7
43-6014	Secretaries, Ex. Legal, Medical, & Executive	13,380	13,550	170	1.3%	244	$12.50	10
43-9011	Computer Operators	1,350	1,170	-180	-13.3%	24	$14.12	10
43-9021	Data Entry Keyers	2,990	3,080	90	3.0%	56	$11.54	10
43-9022	Word Processors and Typists	1,450	1,230	-220	-15.2%	29	$13.22	10
43-9031	Desktop Publishers	260	360	100	38.5%	15	$15.38	7
43-9041	Insurance Claims and Policy Processing Clerks	1,550	1,170	-380	-24.5%	27	$14.44	10
43-9051	Mail Clerks & Mail Machine Op., Ex. Postal Serv.	1,280	1,360	80	6.3%	45	$10.80	11
43-9061	Office Clerks, General	16,760	19,760	3,000	17.9%	622	$11.34	11
43-9071	Office Machine Operators, Except Computer	810	700	-110	-13.6%	28	$11.38	11
43-9111	Statistical Assistants	140	140	0	0.0%	1	$15.27	10
43-9199	Office & Admin. Support Workers, All Other	810	780	-30	-3.7%	13	NA	11
43-9999	Secret./Admin. Assis/Other Off. Sup. Work., AO	2,610	2,670	60	2.3%	48	NA	11
45-0000	Farming, Fishing, and Forestry Occupations	1,230	1,310	80	6.5%	37	NA	NA

45-2091	Agricultural Equipment Operators	260	240	-20	-7.7%	9	$10.06	10
45-2092	Farmworkers/Laborers, Crop/Nursery/Greenhse	310	350	40	12.9%	9	$9.65	9
45-4011	Forest and Conservation Workers	140	150	10	7.1%	5	NA	10
45-9099	Farming, Fishing, & Forestry Workers, All Other	140	150	10	7.1%	3	NA	11
47-0000	Construction and Extraction Occupations	43,000	49,940	6,940	16.1%	1,532	NA	NA
47-1011	First-Line Sup/Mgrs of Con. Trades/Extract. Work	4,310	4,760	450	10.4%	143	$23.62	8
47-2021	Brickmasons and Blockmasons	1,120	1,290	170	15.2%	38	$19.19	9
47-2031	Carpenters	6,550	7,140	590	9.0%	170	$17.21	9
47-2041	Carpet Installers	280	290	10	3.6%	6	$17.79	10
47-2043	Floor Sanders and Finishers	180	200	20	11.1%	5	$13.80	10
47-2044	Tile and Marble Setters	380	430	50	13.2%	11	$20.74	9
47-2051	Cement Masons and Concrete Finishers	830	900	70	8.4%	14	$17.67	9
47-2061	Construction Laborers	5,100	6,410	1,310	25.7%	178	$14.05	10
47-2071	Paving, Surfacing, & Tamping Equip. Operators	390	430	40	10.3%	12	$17.06	10
47-2073	Operating Engineers & Other Con. Equip. Op.	2,550	2,720	170	6.7%	73	$18.73	10
47-2081	Drywall and Ceiling Tile Installers	670	800	130	19.4%	19	$17.62	10
47-2082	Tapers	390	470	80	20.5%	12	$16.52	10
47-2111	Electricians	4,900	6,040	1,140	23.3%	206	$19.57	9
47-2121	Glaziers	280	350	70	25.0%	12	$16.88	9
47-2130	Insulation Workers	410	510	100	24.4%	23	$18.78	10
47-2141	Painters, Construction and Maintenance	2,550	2,910	360	14.1%	81	$15.58	10
47-2142	Paperhangers	150	170	20	13.3%	5	$18.91	10
47-2151	Pipelayers	290	330	200	13.8%	9	$16.58	10
47-2152	Plumbers, Pipefitters, and Steamfitters	3,560	4,120	560	15.7%	115	$19.57	9
47-2161	Plasterers and Stucco Masons	150	170	20	13.3%	5	$19.00	9
47-2181	Roofers	810	990	180	22.2%	37	$17.23	10
47-2211	Sheet Metal Workers	1,790	2,190	400	22.3%	77	$16.11	10
47-2221	Structural Iron and Steel Workers	250	310	60	24.0%	9	$22.15	9
47-3011	Helpers--Brick/Block/Stone/Tile & Marble Setters	280	340	60	21.4%	20	$12.58	11
47-3012	Helpers--Carpenters	210	220	10	4.8%	11	$11.44	11
47-3013	Helpers--Electricians	390	470	80	20.5%	28	$10.60	11
47-3015	Helpers--Pipelayers/Plumbers/Pipefitters/Steamf	800	950	150	18.8%	55	$11.28	11
47-3016	Helpers--Roofers	170	220	50	29.4%	14	$10.72	11
47-3019	Helpers, Construction Trades, All Other	180	230	50	27.8%	14	NA	11
47-4011	Construction and Building Inspectors	440	460	20	4.5%	12	$20.81	8
47-4021	Elevator Installers and Repairers	110	130	20	18.2%	5	NA	9

47-4041	Hazardous Materials Removal Workers	190	270	80	42.1%	14	$14.52	10
47-4051	Highway Maintenance Workers	900	940	40	4.4%	17	$15.09	10
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	150	170	20	13.3%	5	$13.63	10
47-4999	Construction Trades & Related Workers, AO	860	1,160	300	34.9%	69	NA	8
49-0000	Installation, Maintenance, and Repair Occupations	38,140	41,630	3,490	9.2%	1,158	NA	NA
49-1011	FL Sup/Mgrs of Mechanics/Installers/Repairers	3,160	3,560	400	12.7%	122	$23.74	8
49-2011	Computer, ATM, & Office Machine Repairers	1,070	1,320	250	23.4%	37	$17.76	7
49-2022	Telecomm. Equip. Install/Repair, Ex. Line Install	930	870	-60	-6.5%	18	$19.75	7
49-2092	Electric Motor, Power Tool, & Related Repairers	240	250	10	4.2%	7	$18.82	7
49-2094	Electrical/Electronics Repair, Comm/Indus Equip.	800	830	30	3.8%	19	$17.67	7
49-2095	Electrical/Electronics Repair, Pwrhse/Substa/Rly	110	100	-10	-9.1%	2	$21.36	7
49-2097	Electronic Home Entertainm Equip. Install/Repair	190	150	-40	-21.1%	4	$13.77	7
49-2098	Security and Fire Alarm Systems Installers	200	230	30	15.0%	7	$15.44	7
49-2099	Electrical/Electronic Equip Mech/Install/Repr, AO	260	290	30	11.5%	9	NA	7
49-3011	Aircraft Mechanics and Service Technicians	930	1,030	100	10.8%	30	$21.77	7
49-3021	Automotive Body and Related Repairers	1,240	1,410	170	13.7%	48	$15.31	9
49-3022	Automotive Glass Installers and Repairers	200	220	20	10.0%	7	$17.30	9
49-3023	Automotive Service Technicians and Mechanics	5,010	6,000	990	19.8%	217	$15.95	7
49-3031	Bus & Truck Mechanics & Diesel Engine Spec.	2,060	2,250	190	9.2%	72	$16.45	7
49-3042	Mobile Heavy Equip. Mechanics, Ex. Engines	580	670	90	15.5%	24	$19.05	7
49-3053	Outdoor Power Equip. & Other Sm Engine Mech.	160	170	10	6.3%	5	$12.25	10
49-3093	Tire Repairers and Changers	420	460	40	9.5%	20	$9.36	11
49-3099	Vehicle & Mobile Equip. Mech/Install/Repair, AO	230	240	10	4.3%	10	NA	10
49-9012	Control & Valve Install/Repair, Ex. Mech. Door	340	340	0	0.0%	11	$19.91	10
49-9021	Heating, AC, & Refrigeration Mechanics/Installers	1,510	1,880	370	24.5%	53	$16.79	9
49-9031	Home Appliance Repairers	230	250	20	8.7%	7	$17.82	9
49-9041	Industrial Machinery Mechanics	1,530	1,510	-20	-1.3%	41	$20.74	9
49-9042	Maintenance and Repair Workers, General	10,160	10,410	250	2.5%	157	$15.25	9
49-9043	Maintenance Workers, Machinery	550	580	30	5.5%	18	$16.48	9
49-9044	Millwrights	590	660	70	11.9%	25	$22.06	9
49-9051	Electrical Power-Line Installers and Repairers	550	510	-40	-7.3%	18	$22.94	9
49-9052	Telecommunications Line Installers & Repairers	980	1,060	80	8.2%	27	$16.96	9
49-9062	Medical Equipment Repairers	120	140	20	16.7%	5	$19.27	10
49-9091	Coin/Vending/Amusement Machine Serv/Repair	170	210	40	23.5%	8	$16.41	10
49-9094	Locksmiths and Safe Repairers	200	210	10	5.0%	7	$13.86	10
49-9098	Helpers--Installation/Maintenance/Repair Workers	940	1,090	150	16.0%	63	$11.67	11

49-9099	Installation/Maintenance/Repair Workers, AO	1,490	1,680	190	12.8%	50	NA	9
51-0000	Production Occupations	86,670	87,440	770	0.9%	2,045	NA	NA
51-1011	FL Sup/Mgrs of Production/Operating Workers	6,690	6,480	-210	-3.1%	176	$22.53	8
51-2021	Coil Winders, Tapers, and Finishers	380	360	-20	-5.3%	10	$12.57	11
51-2022	Electrical & Electronic Equipment Assemblers	1,090	970	-120	-11.0%	28	$12.05	11
51-2023	Electromechanical Equipment Assemblers	450	390	-60	-13.3%	12	$14.47	11
51-2031	Engine and Other Machine Assemblers	570	510	-60	-10.5%	11	$15.41	11
51-2041	Structural Metal Fabricators and Fitters	590	640	50	8.5%	14	$14.59	10
51-2092	Team Assemblers	10,340	10,710	370	3.6%	218	$12.32	10
51-2099	Assemblers and Fabricators, All Other	3,090	3,570	480	15.5%	102	NA	10
51-3011	Bakers	1,120	1,260	140	12.5%	32	$11.59	9
51-3021	Butchers and Meat Cutters	830	720	-110	-13.3%	20	$12.97	9
51-3023	Slaughterers and Meat Packers	370	370	0	0.0%	9	$11.51	10
51-3092	Food Batchmakers	580	560	-20	-3.4%	14	$14.97	11
51-3093	Food Cooking Machine Operators and Tenders	460	450	-10	-2.2%	8	$11.22	11
51-3099	Food Processing Workers, All Other	300	300	0	0.0%	7	NA	11
51-4011	Computer-Controlled Machine Tool Oper., M/P	1,100	1,170	70	6.4%	46	$14.98	9
51-4012	Numerical Tool & Process Control Programmers	240	240	0	0.0%	9	$17.55	9
51-4021	Extruding & Drawing Machine Setters, O/T, M/P	690	750	60	8.7%	21	$13.70	10
51-4022	Forging Mach. Setters/Operators/Tenders, M/P	230	210	-20	-8.7%	7	$14.81	10
51-4023	Rolling Machine Setters/Operators/Tenders, M/P	170	180	10	5.9%	7	$13.73	10
51-4031	Cutting/Punching/Press Machine S/O/T, M/P	3,110	2,790	-320	-10.3%	61	$13.90	10
51-4032	Drilling & Boring Machine Tool Setters, O/T, M/P	450	370	-80	-17.8%	15	$14.98	10
51-4033	Grind/Lapping/Polish/Buff Mach.Tool S/O/T, M/P	820	810	-10	-1.2%	20	$13.95	10
51-4034	Lathe & Turning Machine Tool Setters, O/T, M/P	1,130	930	-200	-17.7%	44	$14.78	10
51-4035	Milling & Planing Machine Setters, O/T, M/P	290	240	-50	-17.2%	10	$15.47	10
51-4041	Machinists	4,090	4,070	-20	-0.5%	84	$14.99	9
51-4051	Metal-Refining Furnace Operators and Tenders	220	230	10	4.5%	7	$15.65	10
51-4052	Pourers and Casters, Metal	150	170	20	13.3%	6	$15.10	10
51-4071	Foundry Mold and Coremakers	180	160	-20	-11.1%	4	$13.87	10
51-4072	Molding/Coremaking/Casting Mach. S/O/T, M/P	1,280	1,290	10	0.8%	27	$11.34	10
51-4081	Multiple Machine Tool Setters, O/T, M/P	990	980	-10	-1.0%	15	$13.69	10
51-4111	Tool and Die Makers	760	690	-70	-9.2%	19	$20.36	9
51-4121	Welders, Cutters, Solderers, and Brazers	2,660	2,990	330	12.4%	108	$15.32	7
51-4122	Welding/Soldering/Brazing Machine Setters, O/T	570	640	70	12.3%	23	$14.57	10

51-4191	Heat Treating Equip. Setters, O/T, M/P	330	360	30	9.1%	10	$14.88	10
51-4192	Lay-Out Workers, Metal and Plastic	120	110	-10	-8.3%	3	$16.89	10
51-4193	Plating & Coating Machine Setters, O/T, M/P	230	230	0	0.0%	5	$13.17	10
51-4194	Tool Grinders, Filers, and Sharpeners	300	260	-40	-13.3%	8	$12.86	10
51-4199	Metal Workers and Plastic Workers, All Other	1,950	2,120	170	8.7%	55	NA	10
51-5011	Bindery Workers	1,160	1,020	-140	-12.1%	31	$11.38	10
51-5021	Job Printers	500	430	-70	-14.0%	13	$17.69	9
51-5022	Prepress Technicians and Workers	1,100	740	-360	-32.7%	27	$16.81	9
51-5023	Printing Machine Operators	2,390	2,130	-260	-10.9%	60	$15.19	10
51-5099	Printing Workers, All Other	130	110	-20	-15.4%	3	NA	10
51-6011	Laundry and Dry-Cleaning Workers	1,410	1,580	170	12.1%	54	$9.48	10
51-6021	Pressers, Textile, Garment, & Related Materials	550	610	60	10.9%	14	$8.46	11
51-6031	Sewing Machine Operators	1,310	1,280	-30	-2.3%	14	$10.06	10
51-6052	Tailors, Dressmakers, and Custom Sewers	280	290	10	3.6%	7	$12.01	8
51-6062	Textile Cutting Machine Setters/Oper./Tenders	260	250	-10	-3.8%	5	$11.31	10
51-6093	Upholsterers	130	100	-30	-23.1%	4	$10.21	9
51-6099	Textile/Apparel/Furnishings Workers, All Other	150	180	30	20.0%	6	NA	10
51-7011	Cabinetmakers and Bench Carpenters	720	810	90	12.5%	32	$13.91	9
51-7041	Sawing Mach. Setters/Operators/Tenders, Wood	150	160	10	6.7%	7	$10.46	10
51-7042	Woodworking Machine Setters, O/T, Ex. Sawing	230	250	20	8.7%	11	$12.50	10
51-7099	Woodworkers, All Other	110	130	20	18.2%	7	NA	10
51-8013	Power Plant Operators	190	190	0	0.0%	6	$24.79	9
51-8021	Stationary Engineers and Boiler Operators	450	430	-20	-4.4%	13	$20.12	9
51-8031	Water/Liquid Waste Treatment Plant/System Op.	740	880	140	18.9%	37	$17.01	9
51-8091	Chemical Plant and System Operators	960	940	-20	-2.1%	29	$18.35	9
51-8099	Plant and System Operators, All Other	200	220	20	10.0%	8	NA	9
51-9011	Chemical Equipment Operators and Tenders	760	880	120	15.8%	30	$17.18	10
51-9012	Sep./Filter/Clarify/Precipitating/Still Mach. S/O/T	230	230	0	0.0%	5	$14.06	10
51-9021	Crushing/Grinding/Polishing Machine S/O/T	240	270	30	12.5%	8	$13.30	10
51-9022	Grinding and Polishing Workers, Hand	200	220	20	10.0%	6	$12.85	10
51-9023	Mixing/Blending Mach. Setter/Operator/Tenders	990	1,070	80	8.1%	30	$15.18	10
51-9031	Cutters and Trimmers, Hand	120	130	10	8.3%	3	$10.70	11
51-9032	Cutting/Slicing Mach. Setters/Operators/Tenders	560	520	-40	-7.1%	10	$13.77	10
51-9041	Extrud/Form/Pressing/Compacting Mach. S/O/T	200	210	10	5.0%	6	$12.98	10
51-9061	Inspectors/Testers/Sorters/Samplers/Weighers	4,120	3,850	-270	-6.6%	91	$15.11	10
51-9071	Jewelers & Precious Stone & Metal Workers	190	200	10	5.3%	6	$15.32	7

51-9081	Dental Laboratory Technicians	170	180	10	5.9%	6	$16.69	9
51-9083	Ophthalmic Laboratory Technicians	240	240	0	0.0%	7	$10.63	10
51-9111	Packaging & Filling Machine Operators/Tenders	3,010	3,370	360	12.0%	102	$12.58	11
51-9121	Coating/Painting/Spraying Machine Setters, O/T	840	890	50	6.0%	24	$12.98	10
51-9122	Painters, Transportation Equipment	170	200	30	17.6%	7	$15.82	10
51-9123	Painting, Coating, and Decorating Workers	170	200	30	17.6%	7	$8.80	11
51-9132	Photographic Processing Machine Operators	300	310	10	3.3%	9	$10.35	11
51-9191	Cementing/Gluing Machine Operators/Tenders	180	160	-20	-11.1%	4	$12.68	10
51-9195	Molders/Shapers/Casters, Ex. Metal & Plastic	120	140	20	16.7%	5	$11.69	10
51-9196	Paper Goods Mach. Setters/Operators/Tenders	1,470	1,220	-250	-17.0%	29	$13.41	10
51-9198	Helpers--Production Workers	4,810	5,010	200	4.2%	141	$11.15	11
51-9199	Production Workers, All Other	3,560	3,950	390	11.0%	103	NA	10
53-0000	Transportation and Material Moving Occupations	76,440	87,440	11,000	14.4%	2,904	NA	NA
53-1021	FL Sup/Mgrs of Help/Labor/Mat. Movers, Hand	1,210	1,350	140	11.6%	40	$17.85	8
53-1031	FL Sup/Mgr of Trans/Mat.-Mov. Mach & Veh Op	1,370	1,510	140	10.2%	43	$21.10	8
53-2011	Airline Pilots, Copilots, and Flight Engineers	2,120	2,100	-20	-0.9%	49	$111,308++	5
53-2012	Commercial Pilots	170	200	30	17.6%	7	$34,806++	7
53-3021	Bus Drivers, Transit and Intercity	1,010	1,190	180	17.8%	44	$13.53	10
53-3022	Bus Drivers, School	3,440	3,910	470	13.7%	135	$12.09	11
53-3031	Driver/Sales Workers	3,870	4,150	280	7.2%	81	$11.29	11
53-3032	Truck Drivers, Heavy and Tractor-Trailer	10,830	13,120	2,290	21.1%	378	$16.53	10
53-3033	Truck Drivers, Light or Delivery Services	7,710	8,960	1,250	16.2%	231	$13.34	11
53-3041	Taxi Drivers and Chauffeurs	760	910	150	19.7%	21	$8.95	11
53-3099	Motor Vehicle Operators, All Other	890	990	100	11.2%	25	NA	11
53-4099	Rail Transportation Workers, All Other	120	110	-10	-8.3%	4	NA	11
53-5011	Sailors and Marine Oilers	530	590	60	11.3%	24	$15.20	11
53-5021	Captains, Mates, and Pilots of Water Vessels	260	280	20	7.7%	11	$26.84	8
53-5031	Ship Engineers	130	150	20	15.4%	6	$22.40	7
53-6021	Parking Lot Attendants	540	670	130	24.1%	22	$8.30	11
53-6031	Service Station Attendants	390	430	40	10.3%	24	$10.37	11
53-6051	Transportation Inspectors	230	250	20	8.7%	8	$18.18	8
53-6099	Transportation Workers, All Other	370	430	60	16.2%	20	NA	11
53-7011	Conveyor Operators and Tenders	960	1,020	60	6.3%	33	$12.87	11
53-7021	Crane and Tower Operators	390	430	40	10.3%	16	$16.75	10
53-7032	Excavating & Loading Machine & Dragline Oper.	400	490	90	22.5%	21	$17.86	10
53-7051	Industrial Truck and Tractor Operators	4,510	4,770	260	5.8%	89	$13.29	11

53-7061	Cleaners of Vehicles and Equipment	1,950	2,250	300	15.4%	104	$9.03	11
53-7062	Laborers/Freight/Stock/Material Movers, Hand	16,910	18,950	2,040	12.1%	769	$10.89	11
53-7063	Machine Feeders and Offbearers	880	670	-210	-23.9%	30	$11.75	11
53-7064	Packers and Packagers, Hand	12,620	15,520	2,900	23.0%	612	$9.16	11
53-7081	Refuse and Recyclable Material Collectors	550	620	70	12.7%	31	$13.45	11
53-7199	Material Moving Workers, All Other	250	280	30	12.0%	12	NA	11

+ Education/Training Levels
1 First Professional Degree
2 Doctor's Degree
3 Master's Degree
4 Work Experience plus Degree
5 Bachelor's Degree
6 Associate Degree
7 Postsecondary Vocational Training
8 Work Experience in a Related Occupation
9 Long-Term On-The-Job Training
10 Moderate-Term On-The-Job Training
11 Short-Term On-The-Job Training
NA Not Available/Applicable

****Abbreviations**
AO = All Other
FL Sup/Mgrs = First-Line Supervisors/Managers
M/P = Metal and Plastic
O/T = Operators and Tenders
S/O/T = Setters, Operators and Tenders
PS = Postsecondary

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, August 2003.

Cincinnati PMSA
Occupations with High Employment Prospects By Education/Training Level
(Occupations paying $12.00 or more an hour & having at least 50 annual openings)

Code	Occupational Title*	Employment 2000 Annual	2010 Projected	Change in Employment 2000-2010	Percent Change	Total Annual Openings	Average Wage 2002
43-3011	Bill and Account Collectors	3,920	4,680	760	19.4%	174	$13.20
43-3021	Billing & Posting Clerks & Machine Operators	3,690	4,000	310	8.4%	121	$13.37
43-3051	Payroll and Timekeeping Clerks	2,160	2,120	-40	-1.9%	62	$16.08
43-4151	Order Clerks	2,790	2,430	-360	-12.9%	59	$12.68
43-5052	Postal Service Mail Carriers	1,710	1,770	60	3.5%	58	$18.72
43-5053	Postal Service Mail Sorters/Proc/Proc Mach. Op.	2,910	2,810	-100	-3.4%	64	$16.70
43-5061	Production, Planning, and Expediting Clerks	2,280	2,480	200	8.8%	58	$15.80
43-5071	Shipping, Receiving, and Traffic Clerks	6,150	6,530	380	6.2%	162	$12.46
51-9111	Packaging & Filling Machine Operators/Tenders	3,010	3,370	360	12.0%	102	$12.58
53-3022	Bus Drivers, School	3,440	3,910	470	13.7%	135	$12.09
53-3033	Truck Drivers, Light or Delivery Services	7,710	8,960	1,250	16.2%	231	$13.34
53-7051	Industrial Truck and Tractor Operators	4,510	4,770	260	5.8%	89	$13.29
31-9091	Dental Assistants	1,580	2,080	500	31.6%	78	$12.75
33-3012	Correctional Officers and Jailers	1,450	1,770	320	22.1%	67	$15.30
41-4011	Sales Rep., Wholesale & Mfg, Tech./Sci. Prod.	3,060	3,210	150	4.9%	98	$32.56
41-4012	Sales Rep., Wholesale/Mfg, Ex. Tech./Sci. Prod.	10,740	11,240	500	4.7%	342	$26.42
43-3031	Bookkeeping, Accounting, and Auditing Clerks	10,480	10,960	480	4.6%	247	$13.67
43-4051	Customer Service Representatives	14,670	19,370	4,700	32.0%	594	$13.59
43-6011	Executive Secretaries & Admin. Assistants	10,370	11,630	1,260	12.2%	302	$16.08
43-6014	Secretaries, Ex. Legal, Medical, & Executive	13,380	13,550	170	1.3%	244	$12.50
47-2061	Construction Laborers	5,100	6,410	1,310	25.7%	178	$14.05
47-2073	Operating Engineers & Other Con. Equip. Op.	2,550	2,720	170	6.7%	73	$18.73
47-2141	Painters, Construction and Maintenance	2,550	2,910	360	14.1%	81	$15.58
47-2211	Sheet Metal Workers	1,790	2,190	400	22.3%	77	$16.11
51-2092	Team Assemblers	10,340	10,710	370	3.6%	218	$12.32
51-4031	Cutting/Punching/Press Machine S/O/T, M/P	3,110	2,790	-320	-10.3%	61	$13.90

51-5023	Printing Machine Operators	2,390	2,130	-260	-10.9%	60	$15.19
51-9061	Inspectors/Testers/Sorters/Samplers/Weighers	4,120	3,850	-270	-6.6%	91	$15.11
53-3032	Truck Drivers, Heavy and Tractor-Trailer	10,830	13,120	2,290	21.1%	378	$16.53
33-2011	Fire Fighters	2,710	3,020	310	11.4%	101	$14.84
33-3051	Police and Sheriff's Patrol Officers	3,180	4,010	830	26.1%	150	$21.25
47-2031	Carpenters	6,550	7,140	590	9.0%	170	$17.21
47-2111	Electricians	4,900	6,040	1,140	23.3%	206	$19.57
47-2152	Plumbers, Pipefitters, and Steamfitters	3,560	4,120	560	15.7%	115	$19.57
49-9021	Heating, AC, & Refrigeration Mechanics/Installers	1,510	1,880	370	24.5%	53	$16.79
49-9042	Maintenance and Repair Workers, General	10,160	10,410	250	2.5%	157	$15.25
51-4041	Machinists	4,090	4,070	-20	-0.5%	84	$14.99
11-9051	Food Service Managers	2,540	2,860	320	12.6%	62	$17.54
39-1021	First-Line Sup/Mgrs of Personal Serv. Workers	1,560	1,910	350	22.4%	78	$14.88
41-1011	First-Line Superv./Mgrs of Retail Sales Workers	12,910	14,230	1,320	10.2%	318	$15.99
41-1012	First-Line Sup./Mgrs of Non-Retail Sales Workers	2,640	2,800	160	6.1%	55	$29.69
43-1011	First-Line Sup/Mgrs of Office & Admin. Support	8,890	9,610	720	8.1%	244	$19.06
47-1011	First-Line Sup/Mgrs of Con. Trades/Extract. Work	4,310	4,760	450	10.4%	143	$23.62
49-1011	FL Sup/Mgrs of Mechanics/Installers/Repairers	3,160	3,560	400	12.7%	122	$23.74
51-1011	FL Sup/Mgrs of Production/Operating Workers	6,690	6,480	-210	-3.1%	176	$22.53
29-2041	Emergency Medical Technicians & Paramedics	1,110	1,470	360	32.4%	64	$13.96
29-2061	Licensed Practical & Licensed Vocat. Nurses	6,190	7,690	1,500	24.2%	309	$18.61
49-3023	Automotive Service Technicians and Mechanics	5,010	6,000	990	19.8%	217	$15.95
49-3031	Bus & Truck Mechanics & Diesel Engine Spec.	2,060	2,250	190	9.2%	72	$16.45
51-4121	Welders, Cutters, Solderers, and Brazers	2,660	2,990	330	12.4%	108	$15.32
15-1041	Computer Support Specialists	3,780	7,140	3,360	88.9%	352	$21.24
29-1111	Registered Nurses**	14,790	17,800	3,010	20.4%	600	$22.12
29-2071	Medical Records & Health Info. Technicians	830	1,180	180	42.2%	54	$12.76
11-9021	Construction Managers	1,670	1,920	250	15.0%	52	$29.94
13-1051	Cost Estimators	1,910	2,210	300	15.7%	72	$22.86
13-1073	Training and Development Specialists	1,800	2,100	300	16.7%	65	$21.69
13-2011	Accountants and Auditors	6,060	6,850	790	13.0%	169	$23.99
13-2081	Tax Examiners, Collectors, & Revenue Agents	1,420	1,540	120	8.5%	50	$19.28
15-1021	Computer Programmers	2,700	2,910	210	7.8%	78	$26.84
15-1031	Computer Software Engineers, Applications	4,130	8,400	4,270	103.4%	455	$31.60
15-1032	Comp. Software Engineers, Systems Software	1,560	2,680	1,120	71.8%	122	$30.52
15-1051	Computer Systems Analysts	2,770	3,910	1,140	41.2%	138	$30.23

15-1061	Database Administrators	1,080	1,800	720	66.7%	77	$28.90
15-1071	Network and Computer Systems Administrators	1,980	3,480	1,500	75.8%	158	$27.95
15-1081	Network Systems & Data Comm. Analysts	780	1,320	540	69.2%	57	$27.45
17-2141	Mechanical Engineers	1,910	2,000	90	4.7%	65	$29.35
21-1021	Child, Family, and School Social Workers	1,630	2,110	480	29.4%	66	$15.20
25-2021	Elementary School Teachers, Ex.Special Ed.	7,730	8,500	770	10.0%	253	$44,811+
25-2022	Middle School Teachers, Ex. Special & Voc. Ed.	3,450	3,800	350	10.1%	114	$43,726+
25-2031	Secondary Sch. Teachers, Ex. Spec. & Voc. Ed.	4,970	5,660	690	13.9%	220	$47,166+
25-2041	Special Ed. Teachers, Pre./Kinder./Elem. Sch.	1,430	1,860	430	30.1%	61	$43,959+
27-1024	Graphic Designers	1,710	2,050	340	19.9%	51	$19.36
41-3021	Insurance Sales Agents	3,780	3,590	-190	-5.0%	96	$22.17
41-3031	Securities/Commodities/Fin. Serv. Sales Agents	2,000	2,600	600	30.0%	76	$33.35
11-1011	Chief Executives	3,170	3,650	480	15.1%	148	$55.52
11-1021	General and Operations Managers	15,270	17,120	1,850	12.1%	442	$35.99
11-2022	Sales Managers	2,690	3,400	710	26.4%	110	$36.70
11-3011	Administrative Services Managers	2,040	2,490	450	22.1%	78	$25.15
11-3021	Computer and Information Systems Managers	2,110	2,900	790	37.4%	115	$39.80
11-3031	Financial Managers	3,410	3,950	540	15.8%	106	$35.10
11-9111	Medical and Health Services Managers	1,800	2,260	460	25.6%	77	$29.72
13-1111	Management Analysts	2,620	3,120	500	19.1%	73	$29.02
23-1011	Lawyers	2,840	3,440	600	21.1%	79	$41.94
29-1051	Pharmacists	1,660	2,040	380	22.9%	88	$35.38

***Abbreviations**
FL Sup/Mgrs = First-Line Supervisors/Managers
M/P = Metal and Plastic
O/T = Operators and Tenders
S/O/T = Setters, Operators and Tenders
**Training is met through a two-year associate degree; a three-year diploma; or a four-year bachelor's program.
+Average Annual Salary

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, October 2003.

Appendix C

MEMORANDUM OF UNDERSTANDING

BETWEEN THE

SOUTHWEST OHIO REGION WORKFORCE INVESTMENT BOARD
CITY OF CINCINNATI
HAMILTON COUNTY

ONE STOP SYSTEM PARTNERS

I PURPOSE OF MEMORANDUM OF UNDERSTANDING

A. PURPOSE: The purpose of this Memorandum of Understanding (MOU) is to provide information about the relationship between the above mentioned parties regarding their respective roles, duties, obligations and responsibilities for implementation of the provision of section 121(c)(2) of Title I of the Workforce Investment Act (WIA) of 1998. This MOU is also intended to contribute to a cooperative and mutually beneficial relationship between the Chief Local Elected Official, Workforce Investment Board, and the various partners, to coordinate resource to prevent duplication and ensure the effective and efficient delivery of workforce services, and to establish joint processes and procedures that will enable partners to integrate the current service delivery system resulting in a seamless and comprehensive array of job matching, education, family services, job training and other workforce development services. Parties to this document propose to coordinate and perform the activities and services described herein within the scope of legislative requirements governing the parties' respective programs, services and agencies. This MOU also document the importance of WIA performance measure and continuous improvement initiatives.

B. PERIOD OF RELEVANCE: This MOU is designed to serve as a record of the relationship of the signatories from July 1, 2004 until June 30, 2005 unless modified by the partners. The Period of Relevance for each partner will commence upon the date of that partner's signature. A review will be conducted annually for modification and/or amendment. Upon agreement by the parties, the MOU will be renewed for each State Fiscal Year biennium period based on the annual reviews and subsequent modification and/or amendment.

II INTRODUCTION/BACKGROUND

A. BACKGROUND: The Southwest Ohio Region Workforce Investment Board and the Southwest Ohio Career Resource Network (SWOCRN) One-Stop partners enter into this Memorandum of Understanding to ensure that the following principles of the Workforce Investment Act of 1998 are implemented:

Universal Eligibility: All customers, including those with special needs and barriers to employment, will have access to a core set of services at each one-stop center, designed to provide information to make career and labor market decisions. Core, intensive, training and support services are also made accessible on-site.

One-Stop Approach: All customers will have the option to explore work preparation and career development services and have access to information on a range of employment, training and adult and occupational educational programs. Services are made available through the one-stop center.

Individual Choice: Customers will have access to a multitude of career, skill, employment and training information to obtain the services and skills they need to enhance their employment opportunities, based on their individual needs.

Regional Development: The partnership will develop a workforce development system that upgrades the regional area workplace skills and enhances the economic development of the area. Services such as tax credits and labor market information will be made accessible on-site.

Cost Effective: All customers will have access to a system that minimizes cost, enhances the participation of employers and job seekers served through the system and do not duplicate services.

B. Southwest Ohio Region Workforce Investment Board Mission Statement: We will create and develop a comprehensive workforce development system that will engage the entire community towards ever- increasing levels of self-sufficiency.

III PARTIES TO THE MEMORANDUM OF UNDERSTANDING

A. PARTIES AND THEIR ROLES: The Workforce Investment Act clearly identifies the one-stop system as the service delivery system for programs funded under the Act and its partner programs. The SWOCRN is a collaboration of site partners that are responsible for administering workforce investment, educational and other human resource programs and funding streams. The following parties are involved in the administration of the WIA and the SWOCRN:

1. The Chief Elected Official oversees the local workforce development system and represents the local governing authorities.

2. The Southwest Ohio Region Workforce Investment Board is designated to work in partnership with the Chief Elected Official to establish policies and oversee the workforce development system.

3. The Hamilton County Department of Job and Family Services is designated as the fiscal agent for pooled funds for the City of Cincinnati and Hamilton County respectively, for all Title I WIA funds.

4. Affiliated Computer Systems is designated by the Southwest Ohio Region Workforce Investment Board through the Workforce Development Services RFP of July 2001as the One-Stop operator responsible for administration, management and coordination of activities at the physical one-stop site, including satellites.

Required one-stop system partners:

A. Hamilton County Department of Job and Family Services is designated as the administrative entity for WIA Title I federal workforce investment programs (WIA adult, dislocated worker and youth programs).

B. Hamilton County Department of Job and Family Services is responsible for Temporary Assistance to Needy Families (TANF) services, which includes the Ohio Works First (OWF) program, Prevention, Retention and Contingency (PRC) program, childcare, transportation and other support services.

C. The Cincinnati Public Schools, and Great Oaks Institute of Technology & Career Development represent the required partners under WIA who receive state funding for ABLE programs from the Ohio Department of Education.

D. Great Oaks and Cincinnati State Technical & Community College, are the providers of post-secondary vocational educational activities under the Carl Perkins Vocational and Applied Technology Education Act.

E. Ohio Rehabilitation Services Commission is the recipient of funds under WIA Title IV for the administration and provisions of vocational rehabilitation services and employment assistance to eligible individuals with disabilities.

F. Ohio Department of Job and Family Services is the recipient of funds under WIA Title III for the administration and provision of Wagner-Peyser program activities, Unemployment Insurance, Trade Adjustment Assistance, Reemployment Services and Veterans Employment and Training Programs.

G. Cincinnati-Hamilton County Community Action Agency is the grant recipient and provider of services under the Community Services Block Grant to the economically disadvantaged through various educational, childcare, health, employment and other emergency services, such as food, rent, mortgage, medical and emergency services.

H. Mature Services is the grant recipient and provider of services under the Title V Older Americans Act program (Senior Community Employment Program).

I. Cincinnati Metropolitan Housing Authority provides employment support services through HUD funds for individuals who are residents of public housing.

J. DEL-JEN, Inc. provides outreach; admissions and placement services for the Dayton Job Corps and MTC, Cincinnati Job Corps.

IV PARTNER RESPONSIBILITIES

A. SERVICES TO BE PROVIDED: Each partner is responsible for the provision of services associated with the one-stop system site. The levels of service begin with a Core set of services available to the universal population. Further assessments may necessitate the need for more Intensive and/or Training services. These services, customized and based upon Southwest Ohio area needs are described below.

1. Services Description: Services Description are outlined in detail in Attachment A-1: Partner Services Description – Detail
2. Partner Service Responsibilities: Partner Service Responsibilities are outlined in detail in Attachment A-2: Partner Services Responsibilities – Detail
3. Methods of Referral: The referral process provides convenience of services to individuals and businesses using the SWOCRN one-stop center and makes available all Core Service at this site. This process also provides for a continuum of services and follow-up to ensure individual and business needs have been met. All partners agree to follow the SWOCRN one-stop center referral process.
    a. Customer Work Flow: A diagram of the SWOCRN one-stop center individual job seeker and business customer work flows is attached (Attachment A-3: Customer Work Flow Diagram and is detailed below.)

    b. Partner Referrals: Referrals will be tracked using the current registration intake /referral form. Upon full implementation of the SCOTI labor exchange system, the three (3) page registration will be used as an electronic registration and referral process. The form is attached (Attachment A-4: current registration Intake/Referral Form).

The SWOCRN is responsible for ensuring the consistency of the common intake referral process, maintenance of records and quarterly reporting to the Southwest Ohio Region Workforce Investment Board.

B. RESOURCE/COST SHARING: The provision of direct services to individuals and businesses is a key component in the SWOCRN one-stop system. Each partner serves a specific segment of the population and provides services that benefit those individuals. Each partner is responsible for the funding of their direct program services.

The SWOCRN one-stop system includes operational expenses at the comprehensive site located at 1811 Losantiville, Cincinnati, Ohio 45237. All partners will share proportionate responsibility for the cost of the operational expenses of the SWOCRN one-stop site(s).

1. Operational Budget: The total operational budget(s) for the period of July 1, 2004 to June 30 2005 for the SWOCRN one-stop center is approximately $ 503,834.00 ~~Four hundred ninety-six thousand seven hundred seventy-one dollars and zero cents.~~ Each partners' proportionate fair share was calculated using the following methodology: Position Usage also known as full time equivalent with each partner's percentage reflected in Attachment B.

2. Resource/Cost Sharing Agreement: An overview of each partner's fair share of the operation costs is outlined in Attachment B- Resource/Cost Sharing Agreement. Included in the attachment is a narrative describing the cost sharing expense items and the contributions of the partners.

The SWOCRN is responsible for record keeping, accounting and maintenance of this budget and will do so on a monthly basis. A quarterly reconciliation of budget and actual costs shall be conducted and cost-sharing budgets will be adjusted based on this reconciliation.

V GENERAL PROVISIONS

A. PERFORMANCE GOALS: All partners agree to work together to meet and exceed the WIA Performance Measures for the SWOCRN one-stop system. These measures are for Adult, Dislocated, Youth Services and Customer Satisfaction. The SWOCRN will report quarterly on the progress of these measures and all partners agree to discuss ways of mutually attaining these performance measures to reach shared outcomes. The WIA Performance Measures are included as Attachment C. A partner that is an Eligible Training Provider will post the Eligible Training Provider performance information at their service delivery location.

B. PERFORMANCE REPORTING: All partners have agreed to participate in a common intake, referral and individual tracking system operating through the SWOCRN one-stop center. Whenever WIA funds are expended in part or whole for service on an individual, all partners agree to enter/maintain that individual information into the SCOTI automated system. In addition to the required WIA performance measures, the partners agree to provide data for one stop performance measures requested by the Southwest Ohio Region Workforce Investment Board. Those measures are: 1) based on census data, determine the target population of the number of adults at 150% of the poverty level in the city of Cincinnati and Hamilton County, 2) from this target population number, report what percentage are served, gain unsubsidized employment, and the six month and one year retention rate with wage rate information, 3) total cost of service per person successfully served, 4) benchmarking against other known service delivery areas including Montgomery and Clermont counties in addition to other jurisdictions served by the vendor, 5) customer satisfaction for job seekers and employers, 6) number of firms contacted with the number of jobs listed, and 7) number of jobs filled.

C. CONTINUOUS IMPROVEMENT: All partners will participate in a process of program review and continuous improvement of programs identified in the WIA and offered at the One Stop Center, to offer the best possible services and seize opportunities for further integration. The partners agree to develop consistent core products and services with quality standards to be deliverable from any partner. The partners agree to plan for, develop, and implement cross training on all partner services to assure that business and job seeking customers get to the right service the first time. To assure that services are responsive to the needs of the community, partners will survey customers to obtain feedback on customer satisfaction. All partners will participate in the ongoing development and improvement of the SWOCRN one-stop center procedures, policies and operational management. All partners will be part of a joint planning process that will continuously review the needs of the Southwest Ohio workforce and business community and refine the services of the one-stop system based upon those needs. The One Stop Manager will facilitate the above through monthly Operations meetings with representation from all partners.

D. INFORMATION SHARING/CONFIDENTIALITY: All partners agree that any information considered public assistance information pursuant to section 5101.26 of the Ohio Revised Code received by partners pursuant to their involvement with the One-Stop will be used only for the purposes set out in this MOU and will not be re-released to anyone except as allowed by section 5101.27 of the Ohio Revised Code or any other state or federal law which governs release of the information. The parties also agree that the sharing of unemployment compensation claim, wage, employer or employment and training information will be for the purpose of providing employment and training programs and services pursuant to the provisions contained in Sections 4141-43-01 and 4141-43-02 of the Ohio Administrative Code. Additionally, the parties agree that the use of the confidential information obtained through and with the Ohio Rehabilitation Services Commission will be governed under Section 3304-2-63 of the Ohio Administrative Code.

E. AMENDMENTS:

(1)(A) Except as set forth in paragraph (2), the information contained in this MOU may be modified or amended by written consent of all the partners. Any request to amend a provision must be made in writing to the Southwest Ohio Region Workforce Investment Board and must be agreed to by all partners. The Southwest Ohio Region Workforce Investment Board will notify the other partners of the details of any modification request.

(b) The MOU may be modified from time to time to add additional one-stop partners. These new members may sign the MOU in its existing form as of the time that they are being added. All partners to the MOU will be notified in writing of additional parties joining in the MOU. Any adjustment of cost sharing items will be reviewed prior to adding additional partners.

(2) It is understood by the parties that each should be able to fulfill its One Stop role in full accordance with any federal and state laws and policies, which govern or affect their activities. If at any time any party is unable to perform its functions under this Agreement consistent with federal, state or local statutory, regulatory or policy mandates, the affected party should immediately provide written notice to all other parties of their intent to amend or modify the Agreement at least thirty (30) days in advance of effectuating the amendment or modification. No consent from the other parties will be requested if an amendment or modification is made pursuant to this provision.

(3) Periodically the Resource/Cost Sharing Agreement (Attachment B) may required adjustments based upon reconciliation of projected cost to actual expenses and/or minor adjustments to cost sharing items. Minor adjustments of this type will not require a formal amendment to the MOU but it is agreed partners will be notified by SWOCRN of any such modifications.

F. SUPPLEMENTAL AGREEMENTS: To ensure utmost flexibility for all partners, it is understood that the Southwest Ohio Region Workforce Investment Board and/or the Chief Elected Official may enter into separate legally enforceable agreements with each partner, or a combination of partners, which will specify the rights and obligations of that particular partner and the Southwest Ohio Region Workforce Investment Board. The One-Stop operator will provide copies of any such agreements to all other partners.

G. IMPASSE RESOLUTION: In the event that an impasse should arise between the partner(s) and/or the Southwest Ohio Region Workforce Investment Board regarding terms and conditions, the performance, or administration of this MOU, the following procedure will be initiated:

(1) A written document detailing the impasse will be submitted to the SWOCRN. The SWOCRN will attempt to resolve the issue. The Southwest Ohio Region Workforce Investment Board and the partner(s) shall document the negotiations and efforts that have taken place to resolve this issue.
(2) If the impasse is not resolved, the Executive Committee of the Southwest Ohio Region Workforce Investment Board will appoint a special committee to review and attempt resolution of the impasse.
(3) In the event an agreement cannot be reached, the Southwest Ohio Region Workforce Investment Board Chairperson will meet with the Chief Elected Official and/or the partner(s) and/or the SWOCRN based on the nature of the impasse to resolve the issue and will make a recommendation within thirty (30) working days of receiving the dispute. This whole process should be completed within (90) days.
(4) Impasses involving state-level partners will have the participation of the respective executive director/administrator, or their designees, in all resolution activities.

H. WITHDRAWAL: Partners having legally enforceable agreements relating to their participation in the One-Stop may be bound by the terms contained therein, but since this is an information document, any partner to this MOU may withdraw as a signatory from this MOU. It is requested that written notice be provided to all other parties setting forth their intent to withdraw at least thirty (30) days prior to their last anticipated day as a signatory. Withdrawal by one or more partners to the MOU will only result in withdrawal of the MOU for the remaining partners if the service or funds provided by the withdrawing partner(s) is/are essential to the continuing viability of the SWOCRN one-stop center, and the withdrawing partner(s) cannot be easily replaced.

I. NON-DISCRIMINATION: All partners to this MOU are equal opportunity employers. All partners understand they must comply with 29 C.F.R. 37.30 which states it is against the law for a partner to discriminate on the following basis: against any individual in the United States, on the basis of race, color, religion, sex, national origin, age, disability, political affiliation or belief; and against any beneficiary of programs financially assisted under Title I of the Workforce Investment Act of 1998 (WIA), on the basis of the beneficiary's citizenship/status as a lawfully admitted immigrant authorized to work in the United States, or his or her participation in any WIA Title I – financially assisted program or activity. The recipient must not discriminate in any of the following areas: deciding who will be admitted, or have access, to any WIA Title I – financially assisted program or activity; providing opportunities in, or treating any person with regard to, such a program or activity; or making employment decision in the administration of, or in connection with, such a program or activity.

J. MISCELLANEOUS:

(1) NO INDEMNIFICATION AND LIABILITY: By executing this MOU each partner agrees to work together to deliver SWOCRN one-stop services for employers, employees and those seeking employment. However, the partners are not legally "partners" to the extent that term encompasses joint and several liabilities. Each partner under this MOU is responsible for its own employees, representatives, agents and subcontractors.

(2) MUTUAL RESPECT OF ORGANIZATION PRACTICES: All partners identified in this MOU or in supplemental agreements to this MOU agree to respect each other's organizational practices, management structures and Union Contract Agreements in the provision of services under the MOU.

(3) RECORDS MAINTENANCE: The SWOCRN is responsible for all records pertaining to the administration and operation of the SWOCRN one-stop center. This includes all fiscal and accounting records, budgets, performance measures, referral tracking records, customer service surveys and any other pertinent records. In addition, the SWOCRN will provide all partners with an annual report that outlines budget expenditures/reconciliation, services provided and populations served and performance information. These records will be made available to all partners upon request. When a partner's record retention policies are not equal, the most stringent of these policies should be applied to all partners in regard to any SWOCRN one-stop costs. (Reference 29 CFR 97.42)

(4) CROSS-TRAINING: The partners will agree to encourage, accommodate staff and/or provide training and cross-training, as deemed appropriate, to ensure that all partner staff are familiar with all programs represented within the SWOCRN one-stop system in order to integrate services, reduce duplication and improve overall service delivery.

(5) VETERANS PREFERENCE: All US Department of Labor funded employment and training programs administered by all SWOCRN state agency partners will include a veteran priority system as outlined in Title 38 USC Chapter 41 and 42 to provide maximum employment and training opportunities to veterans and other eligible persons within each targeted group as established by federal Public Law 107-288 Section 4215 (b) and state and federal policy in the service area.

(6) UNEMPLOYMENT COMPENSATION REEMPLOYMENT SERVICES (UCRS): The SWOCRN will be responsible for selecting, scheduling, delivering and reporting orientation sessions for selected claimants as outlined in the One-Stop UCRS Requirements, which can be viewed at http://www.ohioworkforce.org .

(7) ONE-STOP POLICIES AND PROCEDURES: The SWOCRN partners have agreed to maintain operational control and responsibility for staff assigned to the SWOCRN one-stop, while assuring staff to adhere to policies and procedures of the SWOCRN. Any partner specific variances with the SWOCRN one-stop policies and procedures should be documented in a supplemental agreement to this MOU. The SWOCRN One-Stop Policies and Procedures are in development and will be incorporated from the new One Stop Operations Committee. All partners will follow the SWOCRN One-Stop Policies and Procedures. Where there is a conflict between those policies and procedures and those of a partner agency, the partner agency's policies and procedures shall take precedence. The partner agencies and the SWOCRN shall work together to minimize such conflicts.

VI SIGNATURE PAGE

By signing this Memorandum of Understanding, all partners have reviewed the MOU and find it accurately reflects a general understanding of their involvement in the One Stop.

By signatures affixed below, the parties specify their agreement:

____
Chair, Tyronne Stuckey___Southwest Ohio Region Workforce Policy Board Date

____
President, John Dowlin, Hamilton County Board of County Commissioners Date

____
Valerie A. Lemmie, Manager,________________________, City of Cincinnati Date

____
Bill Harris, Regional VP ____________________________ ACS, Inc. Date

____
Suzanne Burke_______________, Hamilton County Job and Family Services Date

____
Dr. Ron Wright, _______________, Cincinnati State Tech. & Comm. College Date

____
Dr. Roberta White, ___________________________________, Great Oaks Date

____
Kathleen Kraemer, ____________________, Rehabilitation Services Date
Commission Bureau of Vocational Rehabilitation

____
Tom Hayes, ________________, Ohio Department Job & Family Services Date

____
Gwen L. Robinson CEO_______, Cincinnati-Hamilton Comm. Action Agency Date

____
Paul Magnus_________________________________, Mature Services Date

____
Donald Troendle, ____________, Cincinnati Metropolitan Housing Authority Date

____
Director, Carl Hilliard____________________, Job Corps Date

____
Tim Chambers, ______________________________,DEL-JEN, Inc. Date

____
Alton Frailey, _______________________, Cincinnati Public Schools Date

Attachment A-1
Services Description

Customer Flow

Job Seeker

When a customer enters the one-stop center they will be greeted at the front desk. The customer will be asked "What brings you to the center today?" If it is a return customer, he/she will sign in and be directed according to their request. If it is a new customer, he/she will be directed will have two options. In the first option the customer could meet with a staff member from the initial triage. The staff member will provide one or more of the following: orientation, job postings, basic assessment, resource room, membership, registration to WIA, or a referral(s) to another staff member, partner or workshop. In the second option the customer could chose a self-directed approach and utilize the resource room including a print or video orientation. In either option the customer could move from self to staff assistance at any time.

If the customer chooses the initial triage and requests additional services other than usage of the resource room, the customer will then be referred to one of the following: direct partner service, required workshop (based on program eligibility), career counselor or training specialist. The direct partner services will provide their specialized services for the customer based upon eligibility. The required workshops will also be based upon eligibility for a particular program. The career counselor will provide one or more of the following: individual career counseling, placement assistance, and a detailed plan. In addition the career counselor will be well-versed in labor market information (LMI), work closely with job developers and have knowledge of prerequisites for training programs. The career counselor could also refer the customer to a training specialist or assessment services. The assessment services will include interest, aptitude and basic academic testing. The training specialist will assist with education / training grant applications, direct training such as TAA, career and technical training. The training specialist will know the criteria for training such as income eligibility (WIA Adult, etc.), skills needed, limitations due to criminal record, etc.

Core Services

These services will be available to the universal population at the physical one-stop site.

- Intake and Orientation: Intake into the one-stop system will occur at the physical one-stop site and partner sites through the common intake form, which asks only for information collected by all partners. Orientation to the physical one-stop center and to the one-stop system is available via print form, short videotape, or one on one with a one-stop representative depending on the customer need or request.

- Eligibility for WIA funding services: provide and accept applications based upon information provided on the common intake form, review for core services and eligibility for intensive and training services. Referrals to partner agencies can occur at this time as outlined in the one-stop customer flow. WIA Title I customer records will be maintained in SCOTI.

- Initial assessment of skill levels: In addition to the information on the common intake form, One Stop Initial Assessors, in one on one interview with customers will gather a recent job history, with a quick analysis of demand for the occupational skills in the local labor market and the individual's job seeking skills. Dependent upon the outcome of this assessment the individual will either start working on a job search independently, with some assistance or be referred for mores specialized services with one or more of the one-stop partners, including WIA Title I Adult and Dislocated Worker intensive and training services.

- Job search and placement assistance: individuals may choose to conduct a self guided job search in the resource room and computer lab through use of the job postings provided to the one stop by employers and employment opportunities on the internet or another medium. The individual will also have access to information (print, video, etc.) on resume writing, interview techniques, application completion, labor market information, and employment law. Customers may also receive assistance in their job search in all the above-mentioned services from one of the One Stop Initial Assessors.

- Labor market information and job vacancies: Labor Market Information is available to customers via print in the resource room and internet in the computer lab. One Stop Initial Assessors can assist any customer with a further explanation and/or interpretation of the labor market data. Job vacancies are accessible to the customer via internet in the computer lab and print in the resource room (job board, newspapers delivered to the one-stop for customer use).

- Performance and cost information on Eligible Training Providers: This information will be available to customers in print form and One-Stop representatives will be able to discuss the information. This information will also be posted at educational partner sites.

- Information on one-stop partner services: a document will be available to customers that explains in simple language, what the partners are experts at doing, what services they provide, and when they are successful, so that customers may select the provider best suited to their needs. In addition One-Stop representatives will be able to discuss partner services with customers and make the appropriate referral.

- Information regarding filing Unemployment Compensation Claims: information will be available in print form, and customers may apply via telephone at the one-stop. Also, information will be available in brochure form for customers.

- Availability of support services: information on various support services including how to apply for them, are available in print, on the One Stop web page, and via one stop representatives.

- Follow-up services: For the job seeker the career counselor (partner or One Stop employee – based on attachment) will conduct the follow-up. The follow-up is for customers who have used services and find employment. The follow-up is to assist in the job retention and gather customer feedback. For partner referral follow-up a referral form with communication instructions will be completed on a regular basis.

- Business Services: will be provided under an agreed upon permanent team of business developers (One Stop and partner employees) that report to one manager at the One Stop. The team will meet on a weekly basis as a unit and on a weekly basis with the career counselor staff to improve services to businesses and assist the job seeker become employed more quickly. The business developer will be a single point of contact and the employee charged with building the relationship and coordinating services for the business. The services include recruiting through various methods, training services, outplacement services and for established business customers, employee support services. The details of these services are found in the business services flow chart and the business developer's toolkit document.

Intensive Services:
These services will be provided based on the initial assessment of skill levels, determined need and for some programs, eligibility.

- Comprehensive and specialized assessment: Assessment services of interest, basic academic, and aptitude testing will be available to customers through a referral from a career counselor from the one-stop center or local one stop partners.

- Development of the individual employment plan: One Stop career counselors and specialized partner career counselors will work with the individual to explore and create a plan for moving to the occupation of their choice for which there is local demand.

- Individual counseling and career planning: One Stop career counselors and specialized partner career counselors will work with the individual to explore and create a plan for moving to the occupation of their choice for which there is local demand.

Training services:
These services will be provided to those individuals who have completed core and intensive services and require further training based upon further assessment and analysis of the local labor market demands. Eligibility for these services will be contingent upon available funding. In particular Individual Training Accounts, On-The-Job Training and Customized training are prioritized based upon policies enacted by the Southwest Ohio Region Workforce Investment Board.

- Occupational skills training: For WIA Title I Adult and Dislocated Worker funds, and based upon local market demand occupational skills training will be available to customers from eligible training providers and the approved programs as listed on the Eligible Training Provider list. Training programs approved for this list must fit two of the three following criteria: high demand occupation, high wage occupation, and/or high skill occupation as determined by the local WIB and official local labor market information provided by the State of Ohio.

- On-The-Job Training: On-The-Job training is available for program eligible customers with several partner agencies including WIA Title I Adult and Dislocated Worker, Mature Services and Ohio Rehabilitation Services Commission.

- Workplace and cooperative education: These services are available for enrolled student customers at Cincinnati State Technical and Community College.

- Job Readiness Training: Job Readiness training is available for the universal customer via workshops at the physical one-stop site. Specialized Job Readiness training is available to eligible customers of several partners including, Hamilton County Job and Family Services (TANF & FSET), Ohio Rehabilitation Services Commission, Cincinnati Job Corps, and National Council on Aging.

- Adult Education and Literacy programs: Cincinnati Public Schools provides Adult Education and Literacy programs including GED preparation at the physical one-stop site in addition to the multitude of community sites.

- Customized Training: These services are available for eligible WIA customers in combination with a company contracting for such services.

Business Customer Flow

The Business Developer will mostly initiate business Customer services with a type of sales call. The Business Developer should start the meeting telling the business what brings them to the company's site that day. The Business Developer will be prepared with a tool kit of information and services. In the initial meeting the Business Developer should be able to cover the following in a general manner within two minutes:

- What brings them there today,
- A synopsis of the company's specific labor market information to show understanding of their industry,

- Listen to the employer for their needs, then explain that most services are no cost or pre-paid (taxes) and
- Give a summary of the services the business may need.

The Business Developer will have three main services to offer. Those services are offered in a variety of ways to meet the business customer's needs. The services are:

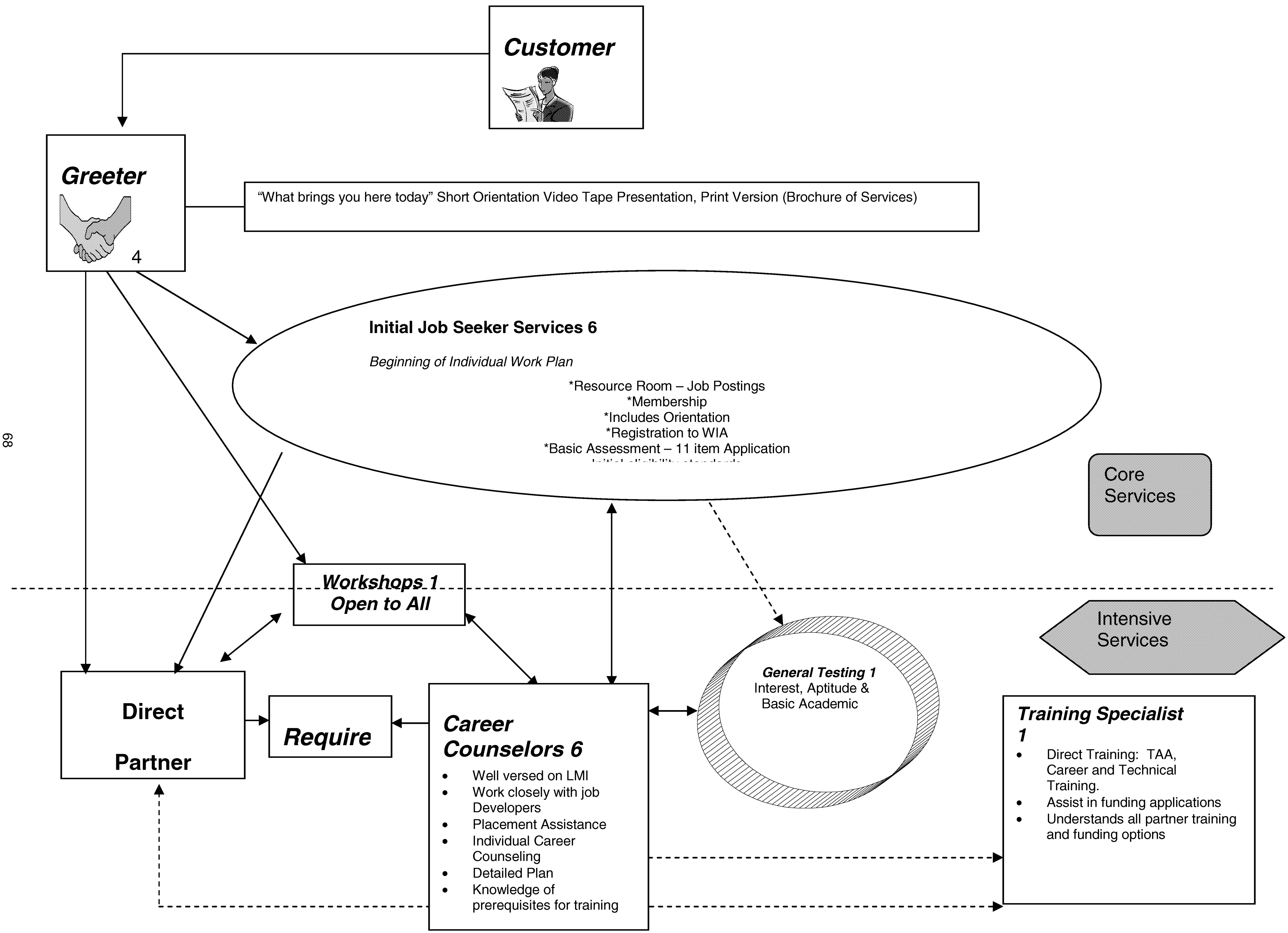
- Package of services
- Recruitment via Job Fairs, screening of candidates, etc.
- Retention programs, e.g. workshops on retention, how to dress for the job, job stress
- Outplacement services including rapid response
- Customized training
- OJT
- Tax Credits and incentives
- Veteran's licensing and certificates
- Veteran's OJT
- Customized LMI beyond the initial industry snapshot
- Incumbent employee services such as mediation, services to maintain current staff and increasing customer skill sets training.

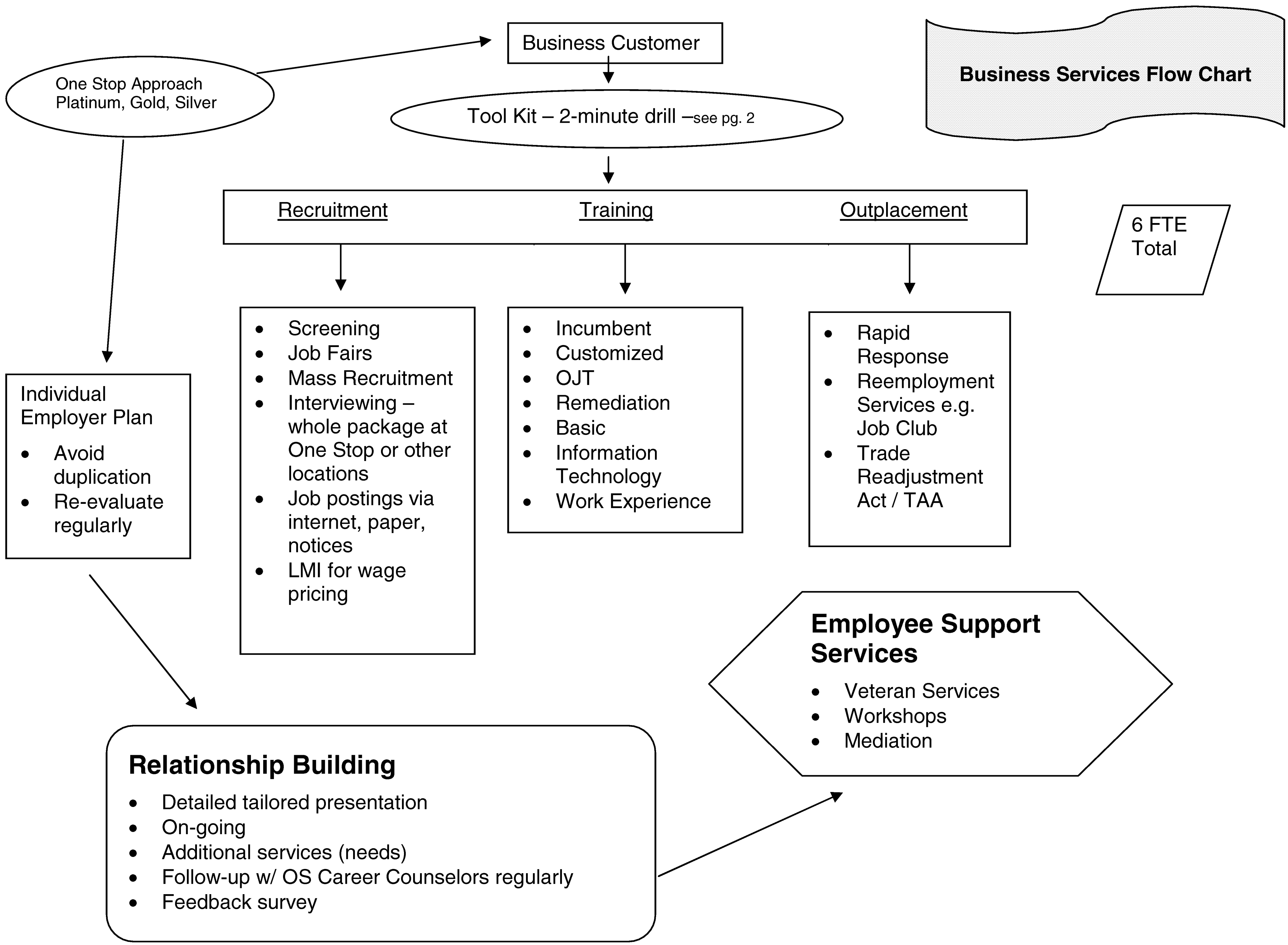
While the Business Developer is working with the company they will start to develop an Individual Employer Plan. Depending upon the services the employer requests, the plan will be formally written for the business. If the services are very basic such as information only requests, then the plan can be written by the Business Developer for a record of services provided to the employer for future reference and tracking in a database. The Individual Employer Plan will become a document detailing the relationship built with the employer. Each employer should be contacted at least three times. During the follow-up visits the Business Developer can offer or negotiate additional services, provide on-going services, employee support services and provide a detailed tailored informational presentation or proposal for services. The Business Developer team will have six (6) representatives with one Manager from the One Stop operator. The Business Developer can be a staff member from a partner. If a partner provides a Business Developer for the team, the partner must agree to have that employee coordinate with the One Stop Business Development Manager and to follow the standards of the One Stop.

Attachment A-2

Partner	ODJFS	WDA / City & County	HCJFS	CPS, GO	CS, GO	ORSC	Mature Services	CAA	CMHA	Job Corps
Partner Programs	Wag.-Peyser, UC, TAA, NAFTA, Vets E&T, Re-employment Services	WIA	OWF	ABLE	Post-Secondary Voc Ed	Rehab Services	Senior Employ	CSBG	HUD E&T	Job Corps
Program Funding Sources	Title III & I	Title I	TANF	Title II	Perkins Act	Title IV	Title V	CSBGA	HUD E&T	DOL
Total Staff at One Stop	15	30	2	0.5	0.5	1	0	1.5	0.5	2
Total annual Staff hours investment	31,200	62,400	4,160	1,040	1,040	2,080	0	3,120	1,040	4,160
Greeter		3						1.5		
Initial Job Seeker Services		5	1						0.5	1
Career Counselors	4	2								1
General Testing		1								
Training Specialist		1			0.5					
Workshops	0.5		1	0.5		1				
Business Developers	2 or 3	4								

Attachment A-3 Job Seeker / One-Stop Flow Chart




Business Services Flow Chart
One Stop Approach
Platinum, Gold, Silver
Business Customer
Tool Kit – 2-minute drill –see pg. 2
Recruitment
Training
Outplacement
6 FTE
Total
Individual Employer Plan
• Avoid duplication
• Re-evaluate regularly
• Screening
• Job Fairs
• Mass Recruitment
• Interviewing – whole package at One Stop or other locations
• Job postings via internet, paper, notices
• LMI for wage pricing
• Incumbent
• Customized
• OJT
• Remediation
• Basic
• Information Technology
• Work Experience
• Rapid Response
• Reemployment Services e.g. Job Club
• Trade Readjustment Act / TAA
Employee Support Services
• Veteran Services
• Workshops
• Mediation
Relationship Building
• Detailed tailored presentation
• On-going
• Additional services (needs)
• Follow-up w/ OS Career Counselors regularly
• Feedback survey

Business Developer Toolkit

- What brings me here today…
- Listen to the business customer for needs
- LMI packet that shows knowledge of the business customers' industry   Critical
- Services are at no cost / pre-paid
- Package of services
    - Recruitment via Job Fairs, screening of candidates, etc.
    - Retention programs, e.g. workshops on retention, how to dress for the job, job stress
    - Outplacement services including Rapid Response
    - Customized training
    - OJT
    - Tax Credits and incentives
    - Veteran's licensing and certificates
    - Veteran's OJT
    - Customized LMI beyond the initial industry snapshot
    - Incumbent employee services such as mediation, services to maintain current staff and increasing customer skill sets training
    - Trade Adjustment Act applications and processing

Attachment A-4

REGISTRATION FORM & INDIVIDUAL EMPLOYMENT PLAN (IEP) – PHASE I

WELCOME! **For** WIA information**, please attend the Career Resource Network Orientation, scheduled Wednesdays at 9am and 2pm**

Date: ___/____/________

Name: ________________________________ **Social Security #:** ________________________

Address: __________________________ **City:** __________________ **State:** ________ **Zip:** ______

Email Address: ______________________ **County:** ________________ **Phone#:** ______________

Gender: ☐ Male ☐ Female

Date of Birth: ____/____/_______

Age Group: ☐ Under 18 ☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65&up

Education Level: (*Check highest level completed)*

☐ 7th or below
☐ 8th
☐ 9th
☐ 10th
☐ 11th
☐ 12th
☐ HS Diploma/GED

☐ Less than 1 Year of College
☐ 1 Year of College
☐ 2 Years of College
☐ 3 Years of College
☐ 4 Years of College
☐ More than 4 Years of College

☐ Vocational/Training
☐ Associates Degree
☐ Bachelors Degree
☐ Masters Degree
☐ Doctorate Degree

Degree/Certifications: ____

Citizen of the United States? ☐ Yes ☐ No

Registered for Selective Service? ☐ Yes ☐ No

Military Service:
☐ Active Duty
☐ Active Reserves
☐ Dishonorable Discharge
☐ General Discharge (honorable)
☐ General Discharge (other than honorable)
☐ Honorable
☐ Inactive Duty
☐ Inactive Reserves
☐ Never Served

How did you hear about us?
☐ Brochure
☐ Friend
☐ Internet
☐ Newspaper
☐ Radio
☐ TV
☐ Other

____

Ethnic Background:
☐ African-American
☐ Asian-Pacific
☐ Caucasian
☐ Hispanic
☐ Native American
☐ Other

Challenges: *(Check all that you feel apply)*

☐ No High School Diploma/GED
☐ No Certificate/Degree
☐ Need Academic Skills Improvement
☐ Lack of job seeking skills
☐ Limited or Sporadic Work History
☐ Limited English Abilities
☐ Single Parent
☐ Displaced Homemaker
☐ Homeless/Runaway

☐ Older Worker (55+ yrs)
☐ Offender/Ex-Offender
☐ History of Substance Abuse
☐ History of Family Violence
☐ Family/Child Care, Transportation or Housing Issues
☐ Medical Condition
☐ Lack of Current Driver's License
☐ Disability __________________________(please list)

"I understand that all information I have provided is treated as strictly confidential and is available only to myself and the agencies (WIA and non-WIA) serving me." ***Please sign below***

CUSTOMER SIGNATURE: ____

Employment Goal: ______________________________

Salary Goal: ______________ **Benefits Expected:** ______________________

Previous Work History:

Employer:	Title:	Start Date:	End Date:	Skills/Job Duties:	Wage:
		/ /	/ /		
		/ /	/ /		
		/ /	/ /		
		/ /	/ /		

Please check the Career Resource Network (CRN) services you wish to access:

CAREER SERVICES OFFERED AT CAREER RESOURCE NETWORK SITES

☐ Job Leads
☐ Job Search Workshops
☐ Computer Lab
☐ Overview of Services
☐ Education/Training Program Information

☐ ***Career Information***
☐ Labor Market Information
☐ Employment Publications
☐ Community Service Info

☐ Fax Machine
☐ Copy Machine
☐ Phones
☐ Reference
☐ Resume Development

SUPPORT SERVICES THE CAREER RESOURCE NETWORK CAN HELP YOU ACCESS

☐ Child Care
☐ Veteran's Employment
☐ Vocational Rehabilitation
☐ Cash/Food Stamp Eligibility

☐ Housing
☐ Unemployment Comp Info
☐ Transportation
☐ Mental Health Counseling

☐ Drug/Alcohol Counseling
☐ Job seeking/job keeping seminars
☐ Budget/Banking
☐ Adult Basic Education

YOUTH SERVICES CONNECTIONS

☐ Job Corps
☐ Building Futures

STAFF USE ONLY ☐ **Core Paperwork Completed**

Initial Narrative:

____

____

Customer Employment Plan Will Include:

____

____

Case Assignment:

SUBMITTED BY: ______________________________ ***(CRN staff only)***

Attachment C

Ohio's Performance Indicators and Goals						
WIA Requirements at Section 136(b) Performance Indicators	Year 2 Actual Performance	Performance Goals by Year				
		1	2	3	4	5
ADULTS						
Adult Entry into Unsubsidized Employment	72%	65%	68%	72%	71%	71%
Adult Retention Rate after 6 Months	81.6%	77%	79%	81%	82%	82%
Adults Earnings Gain after 6 Months	$5,991	$3,450	$3,600	$3,750	$3,475	$3,475
Adult Credential Attainment Rate	52.4%	60%	62%	65%	66.3%	66.3%
DISLOCATED WORKERS						
Dislocated Worker Entered Employment Rate	79.7%	76%	78%	81%	78%	78%
Dislocated Worker Retention Rate	87.8%	84%	86%	88%	88%	88%
Dislocated Worker Replacement Wage	119.9%	88%	90%	93%	98%	98%
Dislocated Worker Credential Attainment Rate	51.5%	60%	62%	65%	66.3%	66.3%
YOUTH 19-21						
Youth 19-21 Entered Employment Rate	74.6%	63%	65%	67%	65%	65%
Youth 19-21 Retention Rate	77.4%	72%	74%	77%	78%	78%
Youth 19-21 Earnings Gains	$5,619	$2,850	$3,000	$3,200	$3,264	$3,264
Youth 19-21 Credential Attainment Rate	32.1%	50%	52%	55%	50%	50%
YOUTH 14-18						
Youth 14-18 Attainment of Basic/Work Readiness/ Occupation Skill	48.8%	72%	74%	77%	72%	72%
Youth 14-18 Attainment of Secondary School Diplomas or Equivalent	23.8%	55%	57%	60%	52%	52%
Youth 14-18 Placement and Retention in Post-Secondary Education Training, or Placement in Military, Employment, Apprenticeships	13.8%	50%	52%	55%	55%	56%
CUSTOMER SATISFACTION						
Participant Customer Satisfaction	79.5%	70%	72%	75%	76.5%	76.5%
Employer Satisfaction	65.3%	66%	68%	70%	71.4%	71.4%

Appendix D

SOUTHWEST OHIO REGION WORKFORCE INVESTMENT BOARD
OPERATING POLICIES

I. AREA COVERAGE

The Southwest Ohio Region Workforce Investment Board (WIB) serves the City of Cincinnati, Clermont County and Hamilton County as part of the Ohio Option for the implementation of the Workforce Investment Act, (Investment Area 7/43).

II. ADDRESS AND ADMINISTRATION

The address of the WIB shall be the address of the Greater Cincinnati Chamber of Commerce, 441 Vine Street, 300 Carew Tower, Cincinnati, Ohio 45202, 513-579-3118 for as long as the Greater Cincinnati Chamber of Commerce provides in-kind administrative services in the staffing of the WIB. Staffs from the City of Cincinnati Employment and Training Department, Clermont County Department of Jobs and Family Services, Hamilton County Department of Jobs and Family Services, and the Clermont Chamber of Commerce provide other administrative support and participation in the WIB.

III. GENERAL FUNCTION

The general functions of the board are set out in the Workforce Investment Act of 1998. Subject to any future modifications or amendments to the Act, the Board shall function in the following prescribed areas of responsibility:

A. The Workforce Investment Board shall, in conjunction with the Chief Elected Official, develop and submit the local Workforce Investment Plan to the Governor.
B. The Workforce Investment Board shall, in conjunction with the Chief Elected Official, select the operator of the One Stop Career Center(s) in the region, part of Workforce Investment Area 7 in the State of Ohio.
C. The Workforce Investment Board shall identify eligible providers of youth activities by awarding grants or contracts on a competitive basis, based on the recommendation of the Youth Council.
D. The Workforce Investment Board shall identify eligible providers of training services as described in Section 134(d)(4) of the Workforce Investment Act of 1998.
E. If intensive services are not provided by the One Stop operator, the Workforce Investment Board shall identify eligible providers of intensive services for the region.
F. The Workforce Investment Board shall establish procedures for providing oversight for programs conducted under the Workforce Investment Plan, through reviewing, monitoring, and evaluating, either by standing or special committees, staff reports, or other methods as needed, at the discretion of the membership.
G. The Workforce Investment Board shall participate with the Chief Elected Official in the negotiation and agreement of local performance measures with the Governor.
H. The Workforce Investment Board shall assist the Governor in developing a statewide employment statistics system.

I. The Workforce Investment Board shall coordinate workforce development activities with economic development strategies and establish employer linkages with such activities.

J. The Workforce Investment Board shall promote the participation of private sector employers in the statewide workforce investment system.

K. The Workforce Investment Board shall perform other appropriate duties related to the development, coordination, operation, and/or promotion of workforce development activity, including solicitation of funding for such activity, at the discretion of the membership.

IV. ROLE OF THE WIB IN ACCORDANCE WITH OHIO OPTION WIA

House Bill 470 provides that the Local Workforce Investment Board is the business-driven policy and planning entity, with the same authority as the Workforce Investment Boards as stated in WIA. The WIB may not directly operate programs or be involved with administrative details. The WIB is charged to:

A. Bring together business, education, and labor leaders to assess the workforce needs of employers and employment and training needs of job-seekers;

B. Identify fiscal and other available resources at the local level; develop priorities and targeting resources toward meeting the priorities;

C. Set policies and priorities;

D. Monitor outcomes

V. POWERS

In accordance with the Workforce Investment Act of 1998 – Ohio Option, the Workforce Investment Board exercises the following prescribed powers:

A. For local Workforce Investment Area/Subarea 7/43, the administrative entities/grant recipients and fiscal agencies are Clermont County, the City of Cincinnati, and Hamilton County. The administrative entity is authorized to conduct activities stated in the local Workforce Investment Plan and authorized by the Workforce Investment Board to do so.

B. The Current Agreement by and among the County Administrators and the Mayor is incorporated in these policies by reference as fully as if set out verbatim therein, and made a part of these policies.

VI. MEMBERS

The membership of the Workforce Investment Board shall consist of at least seventeen members. Business membership shall constitute a minimum of 51% of the total membership. Two (2) members shall be representatives of local educational entities. Two (2) members shall be representatives of local labor organizations. Two (2) members shall be representatives of community-based organizations. Two (2) members shall be representatives of economic development agencies. The One Stop partners designated in the Workforce Investment Act of 1998 shall be represented with a maximum of 30% percent of the members, however, one member may represent more than one One Stop partner.

A. Appointments shall be made jointly by the Clermont and Hamilton County Commissioners and the Mayor of the City of Cincinnati from among nominations submitted by the appropriate parties.

B. Members shall be appointed for three (3) year terms and no member may serve more than two (2) consecutive terms. After serving for two consecutive terms, a member may be reappointed to the Board after an absence of one year.

C. Physical absences for three (3) consecutive meetings without a reason acceptable to the Chairperson shall be presumed cause for removal from Workforce Investment Board membership. Sending a signed proxy with a representative and/or sending a representative does not qualify as a physical presence at meetings for the purpose of attendance.

D. A change in status out of the group represented by the member may disqualify the member from continued Workforce Investment Board membership.

E. Any vacancy in membership shall be filled in the same manner as the original appointment.

F. The composition of the Workforce Investment Board is subject to certification of the Board by the Governor in accordance with the Workforce Investment Act of 1998.

VII. OFFICERS

The officers of the Workforce Investment Board shall be a Chairperson, Vice Chairperson and Secretary. The Chairperson and one other officer shall be elected from among the private sector members of the Board. Normally, officers shall be elected at the annual meeting each year. The initial officers shall be elected at a time and place determined by the Workforce Investment Board.

A. The Chairperson shall preside at all meetings of the Workforce Investment Board and shall execute all official and financial documents for the Board. He or she shall also have, exercise, and perform such other powers and duties as may be assigned to him or her herein and from time to time by the Workforce Investment Board.

B. In case the office of Chairperson shall become vacant, or in the case of the absence of the Chairperson, or his or her inability to discharge the duties of the office, such duties shall, for the time being, devolve upon the Vice-Chairperson. He or she shall perform other duties as from time to time may be assigned to him or her by the Chairperson of the Workforce Board.

C. The Secretary shall have the responsibility for providing that minutes of all Workforce Investment Board meetings are adequately kept. He or she shall perform all such other duties as are incident to his or her office as prescribed by the Chairperson of the Workforce Investment Board.

D. The Chairperson shall appoint a Nominating Committee, which shall submit two (2) weeks before the annual meeting, a slate of at least one nominee for each office. Additional nominations may be submitted from the floor, provided that if the nominee is not present, written agreement of the nominee to serve, if elected, is submitted with the nomination.

E. Officers of the Workforce Investment Board shall be removed from office only for cause and only by the Workforce Investment Board.

VIII. MEETINGS

A. The regular meetings of the Workforce Investment Board shall be held at least quarterly at a time and place determined by the Chairperson. Meetings shall be publicly announced and open and accessible to the public.

B. The regular meeting during the first calendar quarter of each year shall be known as the annual meeting and shall be for the purpose of electing officers, receiving reports of officers and committees, and any other business that may arise.

C. Special meetings may be called by the Chairperson, or if absent, the Vice-Chairperson, and shall be called upon the request of ten (10) members of the Workforce Investment Board.

D. At least five (5) working days notice of any meeting of the members of the Workforce Investment Board shall be given. Notice may be provided in written or electronic format. This requirement may be waived in calling a special meeting in case of emergency as determined by the Chairperson.

E. 50% of the membership of record shall constitute a quorum. Action shall be governed by a majority vote of those present in person or by proxy at a regular or special meeting.

F. No member shall participate in discussions or vote on any matter before the Workforce Investment Board in which that member has a direct financial interest.

G. Proxy votes in writing and with signatures are limited to votes on those actions that are passed on to elected officials. Proxy votes may be carried to a meeting by a representative designated by the appointed member who may participate in discussion but may not vote themselves. Proxy votes may also be obtained subsequent to a meeting, in writing and with signature. Proxies must be received fully completed within a week of the meeting.

IX. COMMITTEES

The purpose of committees is to provide for in-depth review of issues and make recommendations to the Workforce Investment Board regarding decisions. The Workforce Investment Board shall have two permanent committees - the Strategic Development Group (known in other places as the Strategic Development Group) and the Youth Council. The Chairperson is authorized to create and appoint other standing and ad hoc committees (such as an Operations Committee with jurisdictional representatives, or an Employers Council with business representatives, etc.) as are necessary to conduct the activities of the Workforce Investment Board. Committees advance their work through reports and recommendations from Committee to the Board. Committee proposals/resolutions or conclusions are not approved until approved by the Workforce Investment Board.

THE STRATEGIC DEVELOPMENT GROUP (SDG):

A. The Strategic Development Group shall consist of all officers of the Workforce Investment Board, the Chairperson of the Youth Council and other members who shall be appointed by the Chairperson. Chairpersons of any standing committee shall also serve on the Strategic Development Group. The Strategic Development Group shall have a private sector majority.

B. The Strategic Development Group shall meet as necessary during the months that the full Workforce Investment Board does not meet and shall be authorized to act on behalf of the full Workforce Investment Board.

C. The Chairperson of the Workforce Investment Board shall serve as Chairperson of the Strategic Development Group and the Secretary of the Workforce Investment Board shall serve as Secretary to the Strategic Development Group.

D. The Strategic Development Group shall make a full and complete report of its activities and decisions to the Workforce Investment Board at each meeting.

THE YOUTH COUNCIL:

A. The Youth Council shall have a minimum of fifteen (15) members including members of the Workforce Investment Board, representatives of youth service agencies including juvenile justice and law enforcement, representatives of local public housing authorities, parents of eligible youth seeking assistance, and individuals and representatives of organizations that have experience relating to youth activities. The Youth Council may have such other members and necessary at the discretion of the Council.

B. The Youth Council shall establish policies by which the Council will operate and those policies will become effective only after review and approval by the full Youth Council and the Workforce Investment Board.

C. The Youth Council shall recommend eligible providers of youth services to the Workforce Investment Board, conduct oversight with respect to eligible providers of youth activities in the area, coordinate youth activities in the local area, and perform other duties determined to be appropriate by the Chairperson of the Workforce Investment Board.

X. PARLIAMENTARY AUTHORITY

Although it will be the hope of the Workforce Investment Board that decisions can be made through consensus, it is recognized that this may not always be possible. Therefore, the rules contained in the current edition of Robert's Rules of Order, newly revised, shall govern the Workforce Investment Board in all questions which are applicable and provided they are not inconsistent with these policies and any special rules of order the Workforce Investment Board may adopt.

XI. POLICY AMENDMENTS

A. These policies may be amended at any regular meeting of the Workforce Investment Board by a two-thirds vote of the quorum present provided that the amendment has been submitted to the membership in writing 15 days prior to the meeting.

B. Notice of proposed amendments to the policies shall be sent to the Clermont County Administrator, Hamilton County Administrator and Mayor of the City of Cincinnati.

XII. EFFECTIVE DATE

These policies become effective upon adoption by the Workforce Investment Board.

(NOTE: The Workforce Investment Board adopted these policies on April 27, 2001)

Southwest Ohio Region Workforce Investment Board

Date: 3-14-03

Policy #: WIB-POL-03-5

Subject: Standard of Self-Sufficiency Policy

Purpose:
To determine at what income level based on Lower Living Standard Income Level (LLSIL) a customer is eligible for Adult or Dislocated Worker services under the Workforce Investment Act (WIA)

Background:

The WIA Section 134 (d)(A)(ii) states that funds allocated for adults shall be used to provide intensive services to adults and dislocated workers "who are employed, but who are determined by a one-stop operator to be in need of such intensive services in order to obtain or retain employment that allows for self-sufficiency."
The LLSIL is: 1) revised by the Department of Labor (DOL) annually, 2) is geographically based, and 3) is used to determine the income level for WIA eligibility.
WIA Section101 (24) (25) defines the lower living standard income level (LLSIL), and the use of the LLSIL for low income to be 70% of the LLSIL.

Policy Statement:

The Southwest Ohio Region Workforce Investment Board (WIB) defines self-sufficiency for the Adult WIA services as the ability to secure employment at a wage in excess of 200% of the poverty level for family sizes of one (1) or two (2) and 200% of the 70% LLSIL annual chart for a family size of three (3) or more.

The WIB defines self-sufficiency for the Dislocated Worker WIA services as the ability to secure employment at 90% of the customer's previous salary if that salary was above the 200% poverty level.

Southwest Ohio Region Workforce Investment Board
Limited Funds and Priority of Service for Adults Policy

Purpose: To set criteria to determine when funds are deemed limited and when so deemed, the priority of services to be provided to adults

Background: The Workforce Investment Act, Section 134 (d)(4)(E), states that in the event funds allocated to a local area for adult employment and training activities are limited, priority for intensive and training services funded with Title I WIA adults funds must be given to recipients of public assistance and other low-income individuals.

Policy Statement: Adult funds are limited in the local area each quarter by reviewing the status of accruals. If after any quarter, expenses are such that it is likely that the allocation would be exhausted prior to the end of the year, then the priority policy would be put into effect. The priority policy is determined by ORC 5701:9-30-03, Title 38 USC Chapter 41 and 42, Public Law 107-288 Section 4251b and the Five Year Local Workforce Development Strategic Plan.

The Priority of Service is:

1. Veterans

2. Individuals who are most in need and most able to benefit;

3. Individuals receiving public assistance and other low-income (poverty) individuals. Poverty level status will be determined based on an individual's present earnings annualized into the future and family size. The most recently published income guidelines by the US Department of Health and Human Services and the lower living standard income level published by the US Department of Labor will be used to establish poverty level guidelines, whichever is higher.

4. Individuals who are currently unemployed and who are assessed as requiring services beyond core services received to obtain employment at the level of self-sufficiency.

5. Individuals who are employed and are below the established local self-sufficiency criterion.

Action: The Southwest Ohio Workforce Investment Board will review the adult services according to Department of Labor regulations and policies at each quarterly meeting to determine if funds are limited and the priority policy must be put into effect.

Southwest Ohio Region Workforce Investment Board

Date: 3-14-03

Policy #: WIB-POL-03-6

Subject: Supportive Services Policy

Purpose: To ensure that information on supportive services, such as child care and transportation are available to all customers of the workforce development system.

Background: The Workforce Investment Act Section 134 (d)(2)(H) requires the "provision of accurate information relating to the availability of supportive services, including child care and transportation, available in the local area, and referral to such services, as appropriate."

Policy Statement: The Southwest Ohio Region Workforce Investment Board is committed to maximizing a customer's ability to obtain and retain employment. All workforce development organizations under the purview of the Board will make available accurate information and a referral system relating to the availability of supportive services. If all external sources for supportive services have been exhausted, the use of WIA funds for such services will be explored.

Action: The Southwest Ohio Region Workforce Investment Board will provide oversight to ensure the policy is used consistently.

Southwest Ohio Region Workforce Investment Board

Date: December 7, 2004

Policy #: WIB-POL-03-2

Subject: Individual Training Accounts Policy

Purpose: To provide the Administrative Entity and One-Stop Operator with guidance and information on the policy for the provisions related to approving Individual Training Accounts (ITA).

Background: The Workforce Investment Act (WIA), under section 134 (d) (4), requires training services to be provided in a manner (except customized and on-the-job training) that maximizes choice in the selection of an eligible provider of training services (ETPL).

Effective Date: 12-9-2004

Policy Statement:

1. Eligibility - Have met the eligibility requirements for intensive services, have an individual employment plan and have been determined to be unable to obtain or retain employment through such services.

2. Customer Choice and the Use ETPL – Selection of a program of training from the state list of eligible training providers that is directly linked to the employment opportunities in two of the three following: high demand, high wage defined as 175% of the minimum wage, and high skills according to labor market information published by the Ohio Department of Job and Family Services, Labor Market Division, either in the local area or in another area to which the individual is willing to relocate.

3. Focus on Sector Employment -- The One-Stop operator will provide customers with labor market and training information related to the following sectors consistent with the business objectives of the Workforce Investment Board (WIB):

   - Health care industry
   - Construction Industry
   - Customer service/banking or retail
   - Security guards
   - Environmental abatement industry

4. Covered Costs - costs of tuition, fees, books and supplies.

5. Duration and Dollar Amount - lifetime cap as dictated by the Local Five-Year Strategic Workforce Development Plan on Individual Training Accounts. In rare and extenuating circumstances, this cap may be exceeded upon recommendation of the local WIA Program provider, supported and acceptable to the WDA, with final approval from the WIB.

6. Coordination with other Grants – Customers are required to apply for other grants. If unable to obtain grant assistance or beyond that available under grant assistance from other sources such as but not limited to, Federal Pell Grants, Ohio Instructional Grants or scholarships.

7. Maximizing resources – customers with defaulted student loans must make steps to bring their student loans in good standing.

8. Approval for training – participants are deemed eligible, training is necessary for the participant to gain skills in a demand occupation, participant is likely to be successful in the training and subsequent occupation, participant is likely to secure employment following training that meets or exceeds the region's definition of self-sufficiency.

9. Exceptions - on-the-job training or customized training

Action: the Southwest Ohio Region Workforce Investment Board will provide oversight to ensure the policy is used consistently.

Approved 3-14-03
Amended: 12-7-2004
Approved: 12-9-2004

Southwest Ohio Region Workforce Investment Board

Date: December 7, 2004

Policy #: WIB-POL-03-4

Subject: On-The-Job Training Policy

Purpose: To provide the Administrative Entity and WIA program service provider with guidance and information on the policy for provisions related to the requirements for the On-The-Job Training programs provided with of the Workforce Investment Act (WIA) funds.

Effective Date: 12-9-2004

Background: WIA Section 101 (31) and 20 CFR Part 652, section 663.700 through 663.730 establishes the On-The-Job (OJT) training services for Adult and Dislocated Workers.
On-The-Job Training as defined in WIA Section 101 (31) means training by an employer that is provided to a paid participant while engaged in productive work in a job that—

a) Provides knowledge or skills essential to the full and adequate performance of the job;
b) Provides reimbursement to the employer up to 50% of the wage rate of the participant, for the extraordinary costs of providing the training and additional supervision related to the training; and
c) Is limited in duration as appropriate to the occupation for which the participant is being trained, taking into account the content of the training, the prior work experience of the participant, and the service strategy of the participant, as appropriate.

Background for Already employed workers: 20 CFR Part 652, section 663.705 states that OJT contracts may be written for eligible employed workers when:

a) The employee is not earning a self-sufficient wage as determined by local board policy;
b) The above definition of OJT is met; and
c) The OJT relates to the introduction of new technologies, introduction to new production or service procedures, upgrading to new jobs that require additional skills, workplace literacy, or other appropriate purposes identified by the local board.

Policy Statement:

The Southwest Ohio Region Workforce Investment Board deems that On-The-Job (OJT) training must meet the following conditions:

a) Are available to private, public or private non-profit organizations;
b) Must be a contract between the employer and WIA program provider;
c) Will address the additional occupational skills for which the individual is being trained and is identified in their training plan;
d) Will address the occupational skills needed for employment opportunities directly linked to occupations in the following industry sectors consistent with the business objectives of the Workforce Investment Board (WIB):
    - Health care industry
    - Construction Industry
    - Customer service/banking or retail
    - Security guards
    - Environmental abatement industry

e) An employer receiving OJT reimbursement from WIA is limited to 25% of their total staff or no more than 2 concurrent positions, whichever is greater;
f) Must not contract with an employer who has previously exhibited a pattern of failing to provide OJT participants with continued long-term employment with wages, benefits, and working conditions that are equal to those provided to regular employees who have worked in a similar length of time and are doing the same type of work; or
g) On-the-Job training opportunities may be identified for other industries upon approval by the WIB.

Action: The local WIA program service provider will establish a procedure approved by the Administrative Entity that follows the above legislation, regulation, and policy to ensure consistent service delivery to customers. The WIA program service provider will provide an update relative to the status of on-the-job training activities in each monthly report to the Administrative Entity and the WIB.

Approved 3-14-03
Amended: 12-7-2004
Approved: 12-9-2004

Southwest Ohio Region Workforce Investment Board

Date: December 7, 2004

Policy #: WIB-POL-03-1

Subject: Customized Training Policy

Purpose: To provide the Administrative Entity and WIA program service provider with guidance and information on the policy related to the requirements for customized training programs provided with Workforce Investment Act funds.

Effective Date: 12-9-2004

Background:

The Department of Labor Employment and training Administration's (DOLETA) Federal Register (20 CFR Part 652, et al. Section 663.720; WIA Final Rule) states that customized training of an eligible employed individual may be provided for an employer or group of employers when;

- The employee is not earning a self-sufficient wage as determined by local Board policy
- The requirements in 20 CFR Part 652, et al. Section 663.715 (listed below) are met; and
- The customized training relates to the introduction of new technologies, introduction to new production or service procedures, upgrading to new jobs that require additional skills, workplace literacy, or other appropriate purposes identified by the local Board.

In addition the WIA Section 101 (8) and the Federal Register Section 663.715 define "customized training" as training:

- That is designed to meet the special requirements of an employer (including a group of employers)
- This is conducted with a commitment by the employer to employ, or in the case of incumbent workers, continue to employ and individual upon successful completion of the training
- For which the employer pays for not less than 50 percent of the cost of training.

Additionally Federal Register Section 663.720 requires customized training for an eligible employed individual may be provided for an employer or group of employers when:

- The employee is not earning a self-sufficient wage as determined by local board policy
- The requirements in section 663.715 (listed above) are met; and
- The customized training relates to the introduction of new technologies, introduction to new production or service procedures, upgrading to new jobs that require additional skills, workplace literacy, or other appropriate purposes identified by the local board.

Policy Statement:

The Southwest Ohio Region Workforce Investment Board deems that:

- All customized training must be sponsored by an employer or group of employers.

- Training providers applying on behalf of an employer with verification, and when the contract is performance based.

- Upon completion of the customized training, the participant must be employed as a regular full-time employee in the occupation at the company for which they were trained.

- Customized training contracts will be awarded for:

1. Introduction of new technologies
2. Introduction to new production or service procedures
3. Upgrading to new jobs requiring additional skills
4. Employer-Based Workplace Literacy Programs
5. Employment opportunities that are directly linked to occupations in two of the three following: high demand, high wage, and high skills according to labor market information published by the Ohio Department of Job and Family Services, Labor Market Division.
6. Employment opportunities directly linked to occupations in the following industry sectors consistent with the business objectives of the Workforce Investment Board (WIB):

    - Health care industry
    - Construction Industry
    - Customer service/banking
    - Security guards
    - Environmental abatement industry

7. Other customized training opportunities may be identified upon approval by the WIB.

Action: The local WIA program service provider will establish a procedure approved by the Administrative Entity that follows the above legislation, regulation, and policy to ensure consistent service delivery to the customers. The WIA program service provider will provide an update relative to the status of customized training activities in each monthly report to the Administrative Entity and the WIB.

Approved 3-14-03
Amended: 12-7-2004
Approved: 12-9-2004

Southwest Ohio Region Workforce Investment Board
Initial and Subsequent Eligible Training Provider Policy

Purpose

To define and set forth requirements of Initial and Subsequent eligibility for Training Providers (ETP) to receive Workforce Invest Act (WIA) program funds from the Southwest Ohio Region.

Background

The Workforce Investment Act (WIA), under section 122 (a)(2) defines providers of training as:

A) a postsecondary educational institution that is (i) is eligible to receive Federal Funds under title IV of the Higher Education Act of 1965; and (ii) provides a program that leads to an associate degree, baccalaureate degree, or certificate;
B) an entity that carries out programs under the Act of August 16, 1937 (commonly known as the "National Apprenticeship Act"; or
C) another public or private provider of a program of training services.

For a training program, a provider as described in C) above:

(i) shall submit an application, to the local board for the local area in which the provider desires to provide training services containing a description of the program
(ii) if the provider provide training services through a program on the date of application , shall included in the application an appropriate portion of the performance information and program cost information described in "Performance and Cost Information" below, and shall meet appropriate levels of performance for the program as specified in the procedure; and
(iii) if the provider does not provide training services on the date of application, shall meet appropriate requirements, as specified in the procedure.

Performance and Cost Information

For a provider of training services to be determined to be subsequently eligible to receive funds under WIA title I, they shall submit the following:

A) verifiable program specific performance information consisting of:
   (i) training services information for all participants in the applicable program, including
      (I) the percentage of participants who have completed the applicable program and who are place in unsubsidized employment;
      (II) the retention rates in unsubsidized employment of participants who have completed the applicable program, 6 months after the first day of the employment
      (III) the wages received by participants who have completed the applicable program, 6 months after the first day of employment involved; and
      (IV) where appropriate, the rates of licensure or certification, attainment of academic degrees or equivalents, or attainment of other measures of skills, of the graduates of the applicable program and
B) information on program costs (such as tuition and fees) for participants in the applicable program.

State Eligible Training Provider List:

The Ohio Department of Job and Family Services (ODJFS) maintains the list of eligible training providers from all Ohio Local Boards at www.ohioworkforce.org.

Accuracy of Information – If ODJFS, after consultation with the SWORWIB, determines that an eligible provider or individual supplying information on behalf of the provider intentionally supplies inaccurate information, the agency shall terminate the eligibility of the provider to receive WIA title I for not less than two years.

Noncompliance – If ODJFS or the SWORWIB working with ODJFS, determines than an eligible provider substantially violates any requirement under this Act, ODJFS, or SWORWIB working with ODJFS, may terminate the eligibility of the provider to receive WIA title I funds for the program involved or take such other action as ODJFS or SWORWIB determines to be appropriate.

Repayment – A provider whose eligibility is terminated for a program shall be liable for repayment of all funds WIA title I funds received for the program during any period of noncompliance described.

Appeal Process
If a training provider is denied inclusion on the Eligible Training Provider list, or application is rejected, the Board will provide the applicant with a written notice of denial. The written notice will include the reason for the denial and include a copy of the local appeal procedures. Reasons for denying an application are as follows:

- incomplete or not submitted within the required time frames
- performance data is mission or below standards set by the state or local board
- information is inaccurate or illegible
- training programs do not support a demand occupation in the local area
- the training provider is out-of-state and does not agree to submit performance data or enter into an agreement

Policy Statement:

The Southwest Ohio Region Workforce Investment Board (WIB) is committed to establishing a performance-based certification system for training providers that meet the needs of customers/business in our region. We will accomplish this task by performing these duties:

- Review Eligible Training Provider **initial** applications for inclusion on the State of Ohio Eligible Training Provider List, from those organizations identified above that have

1. Submitted an completed application (found at www.ohioworkforce.org) with all supporting documents;
2. Have agreed to collect and provide performance and cost information listed above; and
3. Are providing programs that are directly linked to the employment opportunities in two of the three following: high demand, high wage defined as 175% of the minimum wage, and high skills according to labor market information published by the ODJFS, Labor Market Division, either in the local area or in another area to which the individual is willing to relocate.

- To remain on the State of Ohio list of Eligible Training Providers **subsequent** eligibility will be evaluated on the following criteria:

I. Verifiable program specific performance information consisting of:
    a) training services information for all participants * in the applicable program, including
        1) the percentage of participants who have completed the applicable program and who are place in unsubsidized employment;
        2) the retention rates in unsubsidized employment of participants who have completed the applicable program, 6 months after the first day of the employment

3) the wages received by participants who have completed the applicable program, 6 months after the first day of employment involved; and
4) where appropriate, the rates of licensure or certification, attainment of academic degrees or equivalents, or attainment of other measures of skills, of the graduates of the applicable program and

II. Information on program costs to provide to all One Stop System customers (such as tuition and fees) for participants in the applicable program.

Action:

The Southwest Ohio Region Workforce Investment Board will enforce the attached procedure for approval or denial of training providers based on the policy listed above, for which individuals may use WIA training services including Individual Training Accounts, On-The-Job Training and Customized Training.

* Pending changes in WIA reauthorization

EW, LW 6-18-03

SOUTHWEST OHIO REGION WORKFORCE INVESTMENT BOARD

Date: November 19, 2004

Policy#: WIB-POL-2004-11

Subject: Credential Attainment Policy for Local WIA Area 13

Purpose:

To establish a policy to measure and track credential attainment for adults, dislocated workers and older youth participants under the Workforce Investment Act.

Background:

The Workforce Investment Act (WIA), section 136 (b) (2) (A) has established core indicators of performance for employment and training activities. Credential attainment is one of the core indicators. A credential is evidence that someone has acquired certain knowledge and/or mastered certain skills in a particular field. The State of Ohio has issued guidance to assist local workforce investment boards and WIA administrative entities in creating tools to provide a valid means to substantiate skill and knowledge gains over time and measure skill development efforts. Tracking of skill and knowledge gain through credentials is required to meet performance measures in the Workforce Investment Act.

Policy Statement:

Area 13 Workforce Investment Board (WIB) adopts all existing national and state recognized credentials as outlined in the Ohio Workforce Investment Act Transmittal Letter (WIATL) 9. Recognized credentials are those national and state certificates, degrees, licenses and endorsements that are already in place. In addition, Area 13 Workforce Investment Board (WIB) designates the Administrative Entity as the authority to identify and approve Local Credentials as outlined below.

Action Required:

All Local Credentials must address the Basic Process of Establishing Credential Systems, as identified in the State of Ohio Workforce Investment Act Transmittal Letter (WIATL) 9. To be recognized by the WIB, all Local Credentials must complete this Basic Process and be approved by the Administrative Entity. All current eligible training providers in Area 13 will be provided with this credentialing policy and have an opportunity to address the Basic Process of Establishing Credential Systems. The Administrative Entity will determine if the proposed program/service is able to offer an acceptable Local Credential or determine if an existing state/nationally recognized certificate, degree, license or endorsement is already associated with the program/service.

The outline for the Basic Process of Establishing Credential Systems is as follows:
1. Identify the specific reason a credential is needed.
2. Identify who will benefit from the credential and how.
3. Who is eligible to participate?
4. What are the requirements?
5. What are the standards?
6. What assessment methods will you use?
7. Who will govern?
8. Who will have administrative responsibility?

The Administrative Entity will continue to review and add new Local Credentials as needed. The Administrative Entity will maintain, track and monitor the obtaining of credentials by customers in order to insure compliance of this policy.

In order to receive a local credential, participants must successfully complete the described activities provided by their locally credentialed program/service.

Effective Date: January 1, 2004

Expiration Date: None

Inquiries:

Questions regarding this policy may be directed to Pamela Carter, President of the Southwest Ohio Workforce Investment Board at (513) 562-8452.

Appendix E

Identification of Industry Clusters

For Guiding

Economic Development Efforts

In Cincinnati USA

Prepared for

The Cincinnati USA Partnership

Prepared by the

Economics Center
for education & research
College of Business, University of Cincinnati

in collaboration with the

Center for Business & Economic Research
University of Kentucky

May 19, 2004

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Executive Summary

Purpose

In order to strengthen its economic development performance, the Cincinnati USA Partnership has chosen to adopt a strategy that identifies and focuses on a limited number of industry clusters. The information contained in this report is intended to guide the Partnership and its members in their business attraction, retention, and development efforts and to serve as a foundation for policy decisions.

Employment Overview

- The first three sections present an overview of employment by industry and occupation, along with recent and projected changes. Together, they offer a picture of the context in which the subsequent cluster analysis is developed.

Employment by Industry

- Cincinnati USA's economy is no longer dominated by manufacturing industries. Today, more people are employed in professional and business services than in manufacturing.

- The most important changes that have occurred in the Cincinnati area's industrial composition between 1990 and 2000 are the increases in various service sectors and the decline in manufacturing.

- **In the next five years, Cincinnati USA's economy will be affected by national growth in service-producing sectors. Some of the most rapid growth is expected to occur in industries that have considerable employment in high skill-high wage positions.**

Employment by Occupation

- Overall, the occupation structure in the Cincinnati area is similar to the national structure, though Cincinnati USA has significantly more employment in production-related occupations, and an above average number of workers in high-paying executive, professional, and technical occupations.

- Between 1990 and 2000, occupational employment in the Cincinnati area showed tremendous growth in service occupations as well as executive, professional, & technical occupations. Precision workers, machine operators & blue collar occupations showed little growth through the period.

- In the next five years, the greatest increases are expected in *Management, business, & financial*, *Professional and related*, and *Service* occupations. Of these occupation groups, the first two are mostly made up of positions requiring at least a four-year college degree. The third area, *Service*, includes a wide variety of job types, including many that also require at least some amount of specialized post-secondary training, if not a college degree.

Use of Cluster Analysis

- The next section offers a short explanation of what industry clusters are, and how they can be used in setting a regional economic development strategy.

- Structural changes in the Cincinnati area economy call for new approaches to economic development. Cluster analysis helps economic development specialists monitor and understand these economic changes and take appropriate actions for the benefit of their communities.

- Clusters grow naturally, and it is difficult and expensive to create clusters through public policy. While the development of clusters should be market-induced, some proactive attention is appropriate.

- Cluster policy should be used in an interactive way. Clusters are dynamic. A cluster analysis is not a one-time prescription. To be successful, there should be good communication with the analysts, business community, and the policy makers/implementers.

- Cluster policy is most valuable in identifying targets for recruitment and retention. For recruitment, cluster analysis is able to define an environment in which certain firms are more likely to succeed. Obviously, the probability of successfully recruiting firms that are well suited to a region is higher than for firms less well suited. For more effective retention of firms, better knowledge of clusters can help economic developers focus on strengthening the cluster by supporting the infrastructure underlying the cluster.

- Cluster analysis is widely used. At least half of all states and major metropolitan areas have carried out cluster studies or are in the process of doing so.

Approach to Cluster Identification

- The next section documents the results of the process of identifying industry clusters. It contains information about the clusters considered in this analysis, the screening criteria that are used to promote or exclude various clusters, and a final list of the clusters proposed to the Partnership as candidates for economic development efforts.

- Our first step in identifying industry clusters for the Cincinnati USA region is to find industries that are related at the national level by being part of the same supply chain. Each pair of industries in the same supply-chain cluster is linked in one of the following three ways:

  - one buys from (sells to) the other, either directly or indirectly;
  - their purchase patterns from other industries are similar; or
  - they have similar sales patterns to other industries.

- We then subject the 29 clusters identified by the factor analysis technique to six different statistics that can be used for screening and cluster evaluation. They are 1) high average wages, 2) a strong employment base, 3) an export, rather than local, industry, 4) a high location quotient, 5) strong national growth, and 6) strong local growth relative to national growth. Using our screening process, we are left with ten candidate clusters.

- We validate the ten candidate clusters by seeing how they compare to clusters from six previous studies for the Cincinnati USA region. We then validate our recommendations by linking our industrial clusters to occupational clusters that are strong in the region.

Listing of the Ten Candidate Clusters

- This section presents brief snapshots of each of the recommended candidate clusters, to serve as a ready reference for economic developers and decision-makers. It also contains diagrams of several clusters for the purpose of illustrating relationships within clusters.

- The ten Cincinnati USA clusters recommended as candidates for targeting by the Cincinnati USA Partnership are as follows:

Office-Oriented Clusters

1. ***Advanced Design Services***—offers good wages and high national growth
2. ***Business Management***—has strong wages and local concentration
3. ***Financial Services***—is strong in wages and growth

Technology-Oriented Clusters

4. ***Biotechnology***—shows reasonably good wages and growth
5. ***Digital Equipment & Telecommunications***—has one part that is relatively strong in wages and another with strong growth
6. ***Software & Data Processing***—is high on wages and growth

Manufacturing-Oriented Clusters

7. ***Advanced Manufacturing***—is very large, has moderate wages, a very strong local concentration
8. ***Aerospace***—specifically engines and equipment, has a strong local concentration and is strong in wages
9. ***Chemicals & Plastics***—has relatively good wages and a very strong local concentration
10. ***Motor Vehicle Manufacturing***—has moderate wages and good local growth

- Each of the ten clusters had average annual wages at least as high as $35,000 in 2001.

- Each of the ten clusters can be considered an export cluster engaged in selling goods and/or services to businesses outside the region.

- Each of the ten clusters accounted for at least one percent of employment in the Cincinnati MSA in 2001.

- All ten of the clusters have critical occupations that are concentrated within the Cincinnati USA region.

- The analysis in this report discovers two new clusters, *Advanced Design Services* and *Business Management*, that have not been recommended in any of six previous relevant cluster analyses for the Cincinnati USA region.

- The ten clusters differ with respect to strength of location quotient, national growth, and relative local growth.

Cluster definition is an art as well as a science, so the final definition of any cluster selected by the Partnership will also be based on other criteria as well, including the political and strategic considerations previously identified by the Partnership.

Data Sources and Definitions

This project began with extensive data collection and analysis for the Cincinnati USA region, defined as the new 15-county Cincinnati Metropolitan Statistical Area.[1] The U.S. Census Bureau's County Business Patterns (CBP) data base was selected as the principal source for a detailed picture of employment by industry and occupation. Its primary limitation is that it does not include people who are employed in the public sector, those who work on farms, and those who are self-employed. Other federal data sources include the 1990 and 2000 U.S. Censuses, employment projections from the Bureau of Labor Statistics (BLS), BLS wage and salary data by industry and occupation, and the latest NAICS-based input-output tables for the U.S. economy.[2]

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[1] The 15-county Cincinnati Metropolitan Statistical Area (MSA) includes Hamilton, Butler, Warren, Clermont, and Brown Counties in southwestern Ohio; Boone, Kenton, Campbell, Gallatin, Grant, Pendleton, and Bracken Counties in northern Kentucky; and Franklin, Dearborn, and Ohio Counties in southeastern Indiana.

[2] The 1997 Benchmark Input-Output Accounts for the United States are based on NAICS (North American Industrial Classification System). As opposed to the former SIC (Standard Industrial Classification) system which classifies establishments that have similar products, NAICS groups together establishments with similar production processes.

Section 1: Profile of Industry Sectors in the Cincinnati Metropolitan Area

Table 1 compares the private, non-agricultural employment of the Cincinnati Metropolitan Statistical Area (MSA), totaling 940,084, with that of the United States as a whole, 115,061,184.[3] The four sectors with highest local specialization (highest location quotient) are highlighted in bold.[4]

Table 1: 2001 Employment by Industry Sector

NAICS Code	Industry Sector Description	United States	Cincinnati MSA	Location Quotient
11	Forestry, fishing, hunting, and agriculture support	0.2%	0.0%	0.12
21	Mining	0.4%	0.1%	0.20
22	Utilities	0.6%	0.6%	1.06
23	Construction	5.6%	5.5%	0.97
31	Manufacturing	13.9%	14.7%	1.06
42	**Wholesale trade**	**5.3%**	**6.6%**	**1.23**
44	Retail trade	12.9%	12.4%	0.96
48	**Transportation & warehousing**	**3.3%**	**4.1%**	**1.27**
51	Information	3.3%	2.5%	0.76
52	Finance & insurance	5.4%	5.4%	0.99
53	Real estate & rental & leasing	1.8%	1.6%	0.89
	Financial activities (52 & 53)	7.2%	6.9%	0.97
54	Professional, scientific & technical services	6.2%	5.6%	0.90
55	**Management of companies & enterprises**	**2.5%**	**3.2%**	**1.28**
56	Admin, support, waste mgt, remediation services	7.9%	7.1%	0.90
	Professional and business services (54,55,56)	16.6%	15.9%	0.96
61	Educational services	2.3%	1.7%	0.73
62	Health care & social assistance	12.6%	12.4%	0.98
	Education and health services (61 & 62)	14.9%	14.1%	0.94
71	Arts, entertainment & recreation	1.5%	1.6%	1.06
72	Accommodation & food services	8.7%	8.7%	1.01
	Leisure and hospitality (71 & 72)	10.2%	10.4%	1.01
81	Other services (except public administration)	4.7%	4.4%	0.93
95	**Auxiliaries (exc corporate, subsidiary & regional mgt)**	**0.9%**	**1.8%**	**2.04**

We see, from Table 1, that Cincinnati USA's economy is no longer dominated by manufacturing industries. Today, more people are employed in professional and business services than in manufacturing, and one of these service industry sectors, *Management of companies and enterprises*, demonstrates considerable local

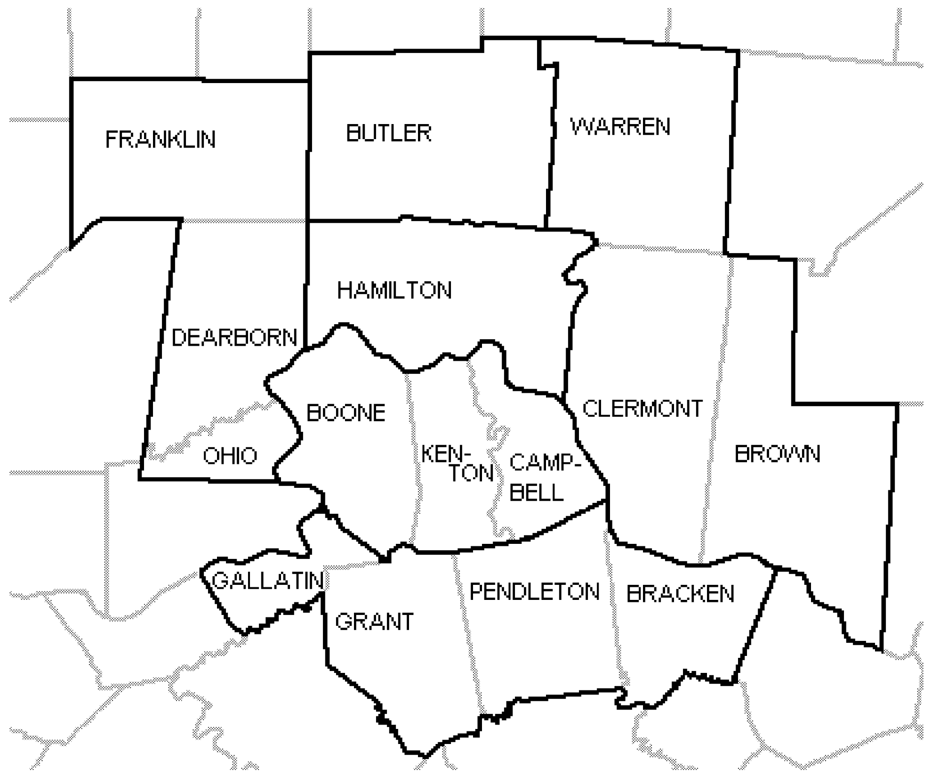
[3] The data in this table come from the County Business Patterns data base, the principal source of employment statistics throughout this report, because it offers data about individual industries on an annual basis.

[4] A location quotient (LQ) for an industry is defined as the share of employees in that industry in the Cincinnati MSA divided by the industry's counterpart share for the United States. An LQ > 1 signifies a greater concentration of the industry in the region than in the United States as a whole.

specialization. Other sectors with high local specialization are *Wholesale trade*; *Transportation & warehousing*; and *Auxiliaries*.[5]

The map below shows the 15 counties of the Cincinnati MSA divided into six geographic sectors.

Six Geograpic Sectors in the Cincinnati MSA



The employment distribution for the metropolitan area can be summarized as follows:

Ohio has 82 percent of employment.
- Hamilton County accounts for 58 percent of all employment.
- Butler County contains 12 percent of the MSA's employment.
- The Eastern counties—Warren, Clermont, and Brown—have 12 percent.

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[5] The Auxiliaries, Excluding Corporate, Subsidiary, and Regional Managing Offices Industry Sector (sector 95) includes establishments with payroll primarily engaged in providing services to one or more establishments of the same enterprise. These establishments generally do not produce any products nor provide services for customers outside the enterprise, but may do so as a secondary activity. (See U.S. Census Bureau Subject Series, 1997 Economic Census *Auxiliaries, Excluding Corporate, Subsidiary, and Regional Managing Offices*.)

Kentucky has 16 percent of employment.

- The Tri-ED area, consisting of Boone, Kenton, and Campbell Counties, holds 15 percent.
- The Southern counties—Gallatin, Grant, Pendleton, and Bracken—have 1 percent.

Indiana has 2 percent of employment.

- The Western counties—Franklin, Dearborn, and Ohio—in the Cincinnati USA area account for the remaining 2 percent of employment.

Appendix A describes the variations in industry specialization between the geographic sectors within the Cincinnati MSA.

Section 2: Profile of Occupations in the Cincinnati Metropolitan Area

An appropriate, skilled labor force is a key factor for successful industries in a regional economy. Hiring and training costs for workers are lower when there is a large supply of skilled workers in a metropolitan area that match the skill needs of businesses in that area. Furthermore, professional contact among a large number of skilled workers at the local level can spark innovation and the transfer of cutting-edge practices. For these reasons, it is important to understand the occupational structure of the metropolitan area. This section of the report provides detailed information on employment by occupation for the Cincinnati MSA. Employment by occupation describes the occupational structure of the area.

Table 2 shows employment by occupation estimates for the Cincinnati MSA as well as the entire United States. Employment data are presented for 22 major occupation groups. These groups indicate employment in detailed professional specialties such as *architecture and engineering*, service occupations such as *food preparation and serving*, sales occupations, and blue-collar occupations such as *installation, maintenance, and repair*.[6] Overall, the occupation structure in the Cincinnati MSA is similar to the national structure, though there are differences. The Cincinnati MSA has significantly more employment in *production*, and in *transportation and material moving*.[7] Shares of employment are similar in most professional and technical occupations (these begin in the table with *business and financial operations* and end with *arts, design, entertainment, sports, and media*). Table 2 shows less employment in the Cincinnati MSA in *education, training and library* occupations. One explanation for this result is our use of private-sector employment in this study. (Many employees with occupations in *education, training, and library* work in the public sector, for example.)

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[6] These estimates are derived using the 2002 National Industry-Occupation Employment Matrix (NIOEM), which shows the employment in the 22 occupation groups (and hundreds of even more detailed occupation groups) for each industry. The NIOEM is applied to employment-by-industry data for the Cincinnati MSA to estimate 2001 employment by occupation for the metropolitan area. Coefficients from the NIOEM also are the source of United States data in Table 3. State governments produce estimates of employment by occupation both statewide and for pre-specified regions of each state. These reports are updated periodically. For example, in the state of Kentucky, regional reports are updated every three years. However, the estimates prepared during this study offer several advantages for analysis of the MSA economy.

- The occupation model developed in this study produces data on employment by occupation that precisely match the region of interest. Employment by occupation can be estimated for the Cincinnati MSA, and any county or group of counties within the MSA that are of interest. Existing state reports use pre-existing regions that do not necessarily match MSA borders.
- Occupation estimates can be updated any time, using the model developed in this study. Annual updates are possible each time new employment by industry data become available. All state reports are not produced annually, and the reports of the three states may be released on different schedules.
- The model in this study utilizes a national industry-occupation employment matrix rather than a state matrix. Therefore, the same matrix is used for counties in each of the three states.

[7] The occupation location quotient is defined as the percentage share of a particular occupation in the Cincinnati MSA divided by the percentage share of that occupation in the United States.

Table 2: 2001 Employment by Occupation Group

Occupation Group	United States	Cincinnati MSA	Occupation Loc. Quot.
Management	7.0%	5.8%	0.83
Business and financial operations	3.8%	3.8%	1.00
Computer and mathematical science	2.1%	2.2%	1.05
Architecture and engineering	1.8%	1.9%	1.06
Life, physical, and social science	0.9%	0.7%	0.78
Community and social services	1.5%	1.2%	0.80
Legal	0.8%	0.6%	0.75
Education, training, and library	5.9%	2.1%	0.36
Arts, design, entertainment, sports, & media	1.7%	1.5%	0.88
Healthcare practitioners and technical	4.6%	4.9%	1.07
Healthcare support	**2.3%**	**2.6%**	**1.13**
Protective service	2.2%	1.2%	0.55
Food preparation and serving related	**7.1%**	**8.6%**	**1.21**
Building and grounds cleaning & maintenance	3.8%	3.1%	0.82
Personal care and service	3.1%	2.3%	0.74
Sales and related	10.6%	11.5%	1.08
Office and administrative support	16.6%	18.4%	1.11
Farming, fishing, and forestry	0.7%	0.2%	0.29
Construction and extraction	5.1%	4.6%	0.90
Installation, maintenance, and repair	4.0%	4.1%	1.03
Production	**7.8%**	**10.4%**	**1.33**
Transportation and material moving	**6.8%**	**8.3%**	**1.22**

Employment by occupation exceeds the national average for the share of *production* employment in all six geographic sectors in the Cincinnati MSA. The same can be said for *transportation and material moving* employment. Appendix B to this report compares the sectors in their specialization by occupation.

Table 3 gives additional detail for occupations. The 22 occupation groups in Table 2 (and Appendix B) are comprised of summary occupations, themselves comprised of many detailed occupations. Table 3 shows 34 occupation specialties (most at the summary occupation level) in which the Cincinnati MSA has a high occupation location quotient. The table, which divides these occupations into three major wage categories, reveals that many of these occupations have high wages, while many others offer at least moderately good wages.

Table 3 shows that most of the highest-paying occupations are found among either *executive, professional, and technical* occupations or among *precision workers, machine operators, and blue-collar* occupations. The table illustrates the Cincinnati MSA's concentration of expertise in management, marketing, promotions, advertising, and sales. There is also a specialty in financial and insurance activities, as well as computer programming and science, and architecture and engineers. There is also specialization in health-care occupations, and a strong specialization in production occupations and air transportation occupations.

Occupation Code	Executive, professional & technical	Precision workers, machine operators, & blue collar	Service	Sales
Average salary: $40,000 and over				
Top Executives	X			
Advertising, Marketing, Promotions, PR, & Sales Mgrs	X			
Operations Specialties Managers	X			
Buyers and Purchasing Agents	X			
Claims Adjusters, Appraisers, Examiners, & Investigators	X			
Credit Analysts	X			
Financial Analysts and Advisors	X			
Loan Counselors and Officers	X			
Computer and Mathematical Science Occupations	X			
Architecture and Engineering Occupations	X			
Aircraft Mechanics and Service Technicians		X		
Supervisors, Production Workers		X		
Supervisors, Transportation and Material Moving Workers		X		
Air Transportation		X		
Sales representative, wholesale and manufacturing				X
Average salary: $30,000-$39,999				
Sheet Metal Workers		X		
Industrial Machinery Installation, Repair, and Maintenance		X		
Metal Workers and Plastic Workers		X		
Printing Occupations		X		
Inspectors, Testers, Sorters, Samplers, and Weighers		X		
Water Transportation		X		
Health Technologists and Technicians			X	
Supervisors, Office and Administrative Workers			X	
Desktop Publishers			X	
Average salary: Less than $30,000				
Preschool teachers, except special education	X			
Assemblers and Fabricators		X		
Butchers and Meat Cutters		X		
All Other Material Moving Occupations		X		
Healthcare Support Occupations			X	
Supervisors, Food Preparation and Serving Workers			X	
Cooks, Restaurant			X	
Hosts & Hostesses, Restaurants, Lounges, & Coffee Shops			X	
Medical Secretaries			X	
All Other Sales and Related Workers				X

Table 3: Occupational Specialties in the Cincinnati MSA

Section 3: Major Employment Changes in the Cincinnati Metropolitan Area

Major Changes by Industry, 1990 to 2000

The 2000 Census revealed some significant changes in the industrial composition of the Cincinnati MSA. Table 4 presents the changes that have occurred between the two censuses for those aggregate sectors that did not undergo significant definitional change between 1990 and 2000. The most important employment changes in Table 4 are the increases in the various service sectors and the decline in manufacturing.[8]

Table 4: Cincinnati MSA Employment By Industry Group, 1990 and 2000

	1990	2000	Change
Total Employed persons, 16 years & over	872,258	982,727	12.7%
Agriculture, forestry, fishing and hunting, and mining	12,985	4,643	-64.2%
Construction	51,517	65,953	28.0%
Manufacturing	181,917	171,949	-5.5%
Finance, insurance, real estate and rental and leasing	57,663	72,973	26.6%
Professional and other services	128,864	239,976	86.2%
Educational, health and social services	143,513	183,451	27.8%
Public administration	28,676	35,085	22.3%

Industry Outlook

In the next five years, Cincinnati USA's economy will be affected by national industry trends. Table 5 compares Cincinnati USA's employment by industry sector with that of the nation, and also shows the Bureau of Labor Statistics' national projections for the period from 2002 to 2012. Note that service-producing sectors show growth, while most goods-producing sectors do not. Some of the most rapid growth is expected to occur in industries that have considerable employment in high skill-high wage positions.

[8] There were substantial revisions to both industry and occupation classifications between the 1990 and 2000 Censuses. This made comparisons of employment between the two Censuses difficult. The decline in employment in the broad wholesale-retail-transportation-warehousing-utilities sector (from 267,123 in 1990 to 208,697 in 2000) is associated with the lack of comparability between old and new industry classification systems.

Table 5: 2001 Industry Employment Mix and 2002-2012 Growth Outlook			
Industry Sector	US: 2001	Cincinnati: 2001	U.S. Growth: 2002-2012
Forest, fish, hunt, & agric. support	0.2%	0.0%	-2%
Mining	0.4%	0.1%	-12%
Utilities	0.6%	0.6%	-6%
Construction	5.6%	5.5%	15%
Manufacturing	13.9%	14.7%	-1%
Wholesale trade	5.3%	6.6%	11%
Retail trade	12.9%	12.4%	14%
Transportation & warehousing	3.3%	4.1%	22%
Information	3.3%	2.5%	18%
Financial activities	7.2%	6.9%	12%
Professional and business	16.6%	15.9%	30%
Education and health	14.9%	14.1%	26%
Leisure and hospitality	10.2%	10.4%	18%
Other services	4.7%	4.4%	16%
Auxiliaries	0.9%	1.8%	**
Unclassified	0.1%	0.0%	**
Public administration	**	**	8%

** No data available.

Major Changes by Occupation, 1990 to 2000

Changes in industrial structure have been accompanied by changes in occupation structure in the Cincinnati MSA. Table 6 compares employment in five aggregate occupation groups from the 1990 Census and 2000 Census. Results show tremendous growth in *service* occupations as well as *executive, professional, & technical* occupations. *Precision workers, machine operators & blue-collar* occupations show little growth through the period. These results are consistent with the rapid growth in the services industries presented above, and indicate the general strong growth in occupations that require advanced education.

Table 6: Cincinnati MSA Employment By Occupation, 1990 and 2000			
Occupation Group	1990	2000	Change
Total Employed persons, 16 years & over	872,258	982,727	12.7%
Executive, professional & technical	267,804	331,972	24.0%
Sales	104,037	111,442	7.1%
Administrative support, including clerical	149,692	162,784	8.7%
Service	110,191	136,554	23.9%
Precision workers, machine operators, & blue collar	240,534	239,975	-0.2%

Occupation Outlook

In the next five years, the Cincinnati MSA's labor force can also be expected to undergo some degree of transformation in response to changes in industry needs. Table 7 compares the MSA's employment by occupation with that of the nation, and also shows the Bureau of Labor Statistics' national projections for the period from 2002 to 2012. The greatest increases are expected in *Management, business, & financial*, *Professional and related*, and *Service* occupations. Of these occupation groups, the first two are mostly made up of positions requiring at least a four-year college degree. The third area, *Service*, includes a wide variety of job types, including many that also require at least some amount of specialized post-secondary training, if not a college degree.

Table 7: Occupation Employment Mix and 2002-2012 Growth Outlook

Occupation Group	US: 2001	Cincinnati: 2001	U.S. Growth: 2002-2012
Management, business, & financial	10.8%	9.6%	15%
Professional and related [a]	19.3%	15.1%	23%
Service [b]	18.5%	17.8%	20%
Sales and related	10.6%	11.5%	13%
Office and administrative support	16.6%	18.4%	7%
Farming, fishing, and forestry	0.7%	0.2%	3%
Construction and extraction	5.1%	4.6%	15%
Installation, maintenance, and repair	4.0%	4.1%	14%
Production	7.8%	10.4%	3%
Transportation and material moving	6.8%	8.3%	13%

[a] Healthcare support; Protective service; Food preparation and serving related; Building and grounds cleaning & maintenance; Personal care and service.
[b] Computer and mathematical science; Architecture and engineering; Life, physical, and social science; Community and social services; Legal; Education, training, and library; Arts, design, entertainment, sports, & media; Healthcare practitioners and technical.

Cluster analysis is a tool that is increasingly adopted by economic development organizations to improve their effectiveness by allowing them to focus their efforts in a world of limited resources and global competitiveness.[9] An analysis of a community's clusters can be very helpful in identifying where it has a competitive advantage. Structural changes in regional economies have called for new approaches to economic development. Cluster analysis has helped economic development specialists guide their regions through a process that builds on an understanding of the changes and suggests appropriate actions to take.

What a Cluster Is

A cluster is a group of strongly interdependent firms or organizations that are somehow related to one another and therefore impact one another. Because of the relationship of firms within a cluster, growth (or decline) in one firm creates a better (worse) business environment for the others in the group. The whole is greater than the sum of its parts.

Some clusters depend on special buyer-supplier linkages that tie firms together. Other clusters are based on labor pools and occupation concentrations. These are especially important when large numbers of a particular type of worker are needed or when specialized labor is important. Firms congregate in areas that provide the type of specialized labor they need. Labor, in turn, tends to migrate to those areas where there is a strong demand for their services. Firms in clusters may depend on shared knowledge of technology and other strategies, and may benefit from a certain type of economic infrastructure or environment with information and knowledge, accessible technology, adequate financing, or acceptable business climate. Examples of economic infrastructure include universities, research institutes, engineering companies, brokers, consultants, favorable laws and regulations, or industry information. Firms that are especially reliant on this type of infrastructure tend to locate in a region that provides these specialties, and this reinforces the further development of the cluster. The resulting agglomeration of firms within this cluster creates helpful economies for all members of the cluster.

Advantages of Clusters

Firms that are part of a strong cluster have a positive impact on an area's economy. The economic efficiencies that firms within clusters create for one another will reduce costs or help to create better products. For this reason, firms within clusters are the most likely to grow and to succeed. This growth and expertise within a cluster often leads to higher rates of technological change and innovation. The same expertise and supportive infrastructure reduce the risk to investment in

[9] This technique has intellectual roots both in industrial organization economics and regional geography. While industrial economists stress inter-industry and inter-organization linkages as well as intra-industry competition (see, for example, AUDRETSCH and FELDMAN, 1996; PORTER, 1990, 1998; and YAMAWAKI, 2002), economic geographers and regional economists focus on the importance of agglomeration economies in industrial location and spatial concentration (DOERINGER and TERKLA, 1995; MARKUSEN, 1996).

start-up companies. Furthermore, since cluster firms tend to buy from one another, the purchase of inputs by a cluster firm is more likely to be made from another cluster firm rather than a firm outside the region, leading to high economic impact.

Using a Cluster Analysis

The role of economic development organizations in creating clusters should be well understood. Clusters grow naturally, and it is difficult and expensive to create clusters through public policy. While the development of clusters should be market-induced, some proactive attention is appropriate. Studies show that clusters become stronger when firms consciously work at improving their competitive advantage by addressing common problems such as workforce recruitment, training issues, developing infrastructure, and establishing needed research and training programs at universities. Economic developers can work as a catalyst that brings these firms together in order to support structures and incentives that assist the clustering and innovation process. Cluster policy should avoid focusing on only the "classic" clusters or targets. Often small and emerging clusters have more potential.

Cluster policy is most valuable in identifying targets for recruitment and retention. For recruitment, cluster analysis is able to define an environment in which certain firms are more likely to succeed. Obviously, the probability of successfully recruiting firms that are well suited to a region is higher than for firms less well suited. Importantly, these firms are more likely to succeed if they fit well into a cluster. For more effective retention of firms, better knowledge of clusters can help economic developers focus on strengthening the cluster by supporting the infrastructure underlying the cluster. This might include providing more information on training needs, eliminating regulatory barriers to better cluster development, or providing platforms for constructive dialogue among firms within the cluster.

Finally, cluster policy should be used in an interactive way. Clusters are dynamic. A cluster analysis is not a one-time prescription. To be successful, there should be good communication with the analysts, business community, and the policy makers/implementers. Forums should be convened in which firms and organizations within the cluster can address shared problems and changes within the cluster. A monitoring system should be developed to track changes in the cluster and the responsiveness of the economic infrastructure to these changes.

Economic development strategy based on cluster analysis will focus on expansion, retention, and attraction of businesses in selected clusters. Identification of regional clusters begins with an examination of the input-output relationships among industries. National clusters are then defined using a factor analysis of the economic linkages among individual industries. National clusters are then screened based on their strengths in the regional economy. Both location-quotient analysis and shift-share analysis are part of the screening process for identifying regional clusters. Finally, validation of a smaller group of "candidate clusters" occurs using both occupation-by-industry data to identify pockets or clusters of workers with specialized skills that support particular industrial clusters in the region, as well as political and business priorities as gleaned from six recent studies relevant to the Cincinnati USA region.

Statistical Identification

Our first step in identifying industry clusters for the Cincinnati USA region is to find industries that are related at the national level by being part of the same supply chain. Each pair of industries in the same supply-chain cluster are linked in one of the following three ways:

1. one buys from (sells to) the other, either directly or indirectly;
2. their purchase patterns from other industries are similar; or
3. they have similar sales patterns to other industries.

Using the Department of Commerce's *Input-Output Transactions Between NAICS Sectors* (1997) and a statistical technique, known as factor analysis,[10] we find 29 national clusters that we are able to interpret straightforwardly.[11] They are listed in Appendix C, along with their accompanying NAICS industries and codes.

The NAICS (North American Industrial Classification System) system of categorizing industries, that has within the last decade replaced the SIC (Standard Industrial Classification) system, gives special attention to new and emerging industries, service industries, and industries engaged in the production of advanced technologies. Hence, the NAICS system permits a balanced view of the United States industrial structure. Linkages across major sectors in the economy are uncovered using the factor analysis technique. Whereas some of the clusters that our statistical approach reveals are either primarily manufacturing clusters (such as *Chemicals & Plastics*) or service clusters (*Business Management*), others include a mix of industries (*Software & Data Processing*).

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[10] We follow the factor-analysis technique outlined in Edward J. Feser and Edward M. Bergman (2000), "National Industry Cluster Templates: A Framework for Applied Regional Cluster Analysis," *Regional Studies*, **34**, pp. 1-19. We use a Promax rotation rather than a Varimax rotation in the factor analysis to account for inter-factor correlations. There are 122 industrial sectors in the 1997 input-output tables.

[11] Factor analysis leads to 32 clusters. Two are wholly contained in one of the other clusters. A third appears not to be internally consistent but is rather composed of industries that do not have normal cluster relationships with one another. Hence, we are left with 29 clusters to analyze further.

Regional Characteristics and the Screening of Potential Clusters

We then subject the 29 clusters identified by the factor analysis technique to six different statistics that can be used for screening and cluster evaluation. Based on the results of those statistics, we are able to come up with ten candidate clusters that we describe and discuss in Section 6. We note that we use the statistics to eliminate some of the clusters from further consideration. We do not use the statistics to "rank order" the remaining clusters, nor do we "rank order" the evaluation statistics themselves to say, for example, that one statistic is more useful than another.

- High Average Wages

  Our first criterion for cluster recommendation is that the cluster has a positive impact on local incomes. Hence, we look for industrial clusters that pay relatively high wages. We measure this screen as national payroll for the cluster divided by national employment for the year 2001.

- Strong Employment Base

  Our second screen is that a cluster must have a reasonably strong employment base within in the Cincinnati MSA. Without at least a modest concentration of business within a particular cluster, a cluster is unlikely to take root and succeed. Moreover, some clusters are important because of their considerable size. We measure employment base as percent MSA employment for 2001.

- Export Industry

  We require our screened clusters to have industries that serve more than just the local economy. They must have an export base. New money from outside the region can help facilitate economic development by way of impact multipliers.[12]

- Location Quotient (LQ)

If a cluster has a strong presence in the region, relative to its presence in the nation, then it is more likely to succeed than otherwise. Relative local importance is measured by the cluster's location quotient for 2001.

[12] The distinction between export and local is specific to the Cincinnati MSA. Whereas some regions, such as New York and Los Angeles, may export from the *Movies, TV, & Radio* Cluster, this is not true for firms in the Greater Cincinnati area.

- Strong National Growth

  If a cluster is exhibiting strong national growth in employment, it is more likely to succeed regionally than otherwise. National trends may indicate where there are opportunities to "catch a wave" that can help to boost the local economy. We measure national growth as percent change in employment at the national level between 1998 and 2001.

- Strong Relative Local Growth

  If a cluster is exhibiting strong local growth relative to national growth, this shows its ability to succeed in the face of an adverse national trend. We measure this screen as the percentage change in local employment from 1998 to 2001 less the percentage change in national employment over that same time period.

Table 8 lists the 29 clusters identified from the factor analysis along with values for the six screens.

Table 8: National Cluster Strength in the Cincinnati MSA

Cluster	2001 MSA Employment	Cluster Screen						
		2001 Avg. Wages	Emplmt % of MSA	Export Production	Location Quotient	National Growth	Local Growth	Local minus National
Advanced Design Services	16,173	$47,493	1.7%	Export	1.02	9.3%	2.6%	-6.7%
Aerospace	9,069	$57,900	1.0%	Export	1.23	-10.4%	-7.6%	2.8%
Agriculture	200	$34,190	0.0%	Local	0.16	-4.9%	18.3%	23.2%
Banking	30,591	$64,248	3.3%	Export	0.91	13.3%	10.1%	-3.2%
Biotechnology	45,063	$41,074	4.8%	Export	0.95	6.6%	12.0%	5.4%
Business Management	47,393	$61,560	5.0%	Export	1.27	8.3%	-6.4%	-14.7%
Business Support and Services	196,286	$19,413	20.9%	Export	1.01	10.9%	6.0%	-4.9%
Chemicals and Plastics	20,870	$40,716	2.2%	Export	1.41	-4.9%	1.0%	5.9%
Construction Materials	143,162	$25,078	15.2%	Local	0.92	4.4%	2.2%	-2.2%
Digital Equipment	14,904	$56,605	1.6%	Export	0.73	-0.4%	7.0%	7.4%
Entertainment	3,913	$48,759	0.4%	Export	1.01	16.3%	7.3%	-9.0%
Food and Beverages	158,729	$26,609	16.9%	Export	1.18	4.3%	9.3%	5.0%
Metalworking and Industrial Machinery	56,209	$37,980	6.0%	Export	1.36	-5.4%	-0.5%	4.9%
Mining and Transportation	1,634	$47,300	0.2%	Local	0.84	-6.2%	21.3%	27.5%
Motor Vehicle Manufacturing	19,149	$36,228	2.0%	Export	1.01	-3.6%	10.7%	14.3%
Movies, TV, and Radio	9,934	$45,872	1.1%	Local	0.92	11.0%	-5.2%	-16.2%
Oil and Gas Extraction & Transportation	169	$72,699	0.0%	Export	0.15	-5.2%	18.2%	23.4%
Petroleum Products	6,996	$61,348	0.7%	Export	0.91	-1.9%	-1.8%	0.1%
Primary Nonferrous Metals	10,169	$35,852	1.1%	Export	1.13	-7.3%	4.3%	11.6%
Printing and Publishing	43,164	$30,445	4.6%	Export	1.02	6.0%	1.7%	-4.3%
Securities and Insurance	25,019	$45,215	2.7%	Export	1.11	2.5%	4.8%	2.3%
Software and Data Processing	15,442	$69,197	1.6%	Export	0.79	33.7%	20.5%	-13.2%
Telecommunications	14,703	$49,075	1.6%	Export	0.96	14.8%	34.7%	19.9%
Textiles and Apparel	2,666	$23,864	0.3%	Export	0.34	-25.3%	-4.6%	20.7%
Transportation Support & Services	35,883	$64,741	3.8%	Export	1.16	7.2%	-4.4%	-11.6%
Truck Transportation	13,663	$33,442	1.5%	Export	0.88	7.6%	16.2%	8.6%
Urban Services	372,447	$28,649	39.6%	Local	0.93	8.7%	8.8%	0.1%
Utilities	57,202	$40,415	6.1%	Local	0.99	10.5%	8.5%	-2.0%
Wood Products	4,082	$33,750	0.4%	Export	0.62	-5.5%	2.1%	7.6%

We use the following simple screening procedure.

1. Each cluster with a 2001 average wage below $35,000 is excluded.
2. Each cluster with employment less than 1 percent of the MSA total for 2001 is excluded.
3. The *Movies, TV, & Radio* Cluster and the *Utilities* Cluster are excluded because they are local, rather than export, clusters.
4. *Transportation Support & Services* is excluded since it is overwhelmingly accounted for in the *Business Management* Cluster, so we capture its advantages to the region elsewhere. (Transportation industries in this cluster are concentrated in Northern Kentucky, and Angelou has recommended a *Transportation* Cluster to Tri-ED. The Partnership may wish to consider how it can support Tri-ED's efforts if it adopts this cluster.)

The 13 remaining clusters, as shown in Table 9, all paid average annual wages in 2001 exceeding $35,000; each employed at least one percent of the total number of employees in the MSA in 2001; and each is classified as an export industry. This table provides no additional screening.

Table 9: National Cluster Strength in the Cincinnati MSA

Cluster	Cluster Screen						
	2001 MSA Empl'm't	2001 Avg. Wages	Emplmt % of MSA	Location Quotient	National Growth	Local Growth	Local minus National
Advanced Design Services	16,173	$47,493	1.7%	1.02	9.3%	2.6%	-6.7%
Aerospace	9,069	$57,900	1.0%	1.23	-10.4%	-7.6%	2.8%
Banking	30,591	$64,248	3.3%	0.91	13.3%	10.1%	-3.2%
Securities and Insurance	25,019	$45,215	2.7%	1.11	2.5%	4.8%	2.3%
Biotechnology	45,063	$41,074	4.8%	0.95	6.6%	12.0%	5.4%
Business Management	47,393	$61,560	5.0%	1.27	8.3%	-6.4%	-14.7%
Chemicals and Plastics	20,870	$40,716	2.2%	1.41	-4.9%	1.0%	5.9%
Digital Equipment	14,904	$56,605	1.6%	0.73	-0.4%	7.0%	7.4%
Telecommunications	14,703	$49,075	1.6%	0.96	14.8%	34.7%	19.9%
Metalworking and Industrial Machinery	56,209	$37,980	6.0%	1.36	-5.4%	-0.5%	4.9%
Primary Nonferrous Metals	10,169	$35,852	1.1%	1.13	-7.3%	4.3%	11.6%
Motor Vehicle Manufacturing	19,149	$36,228	2.0%	1.01	-3.6%	10.7%	14.3%
Software and Data Processing	15,442	$69,197	1.6%	0.79	33.7%	20.5%	-13.2%

Anticipating the results of our cluster validation below, which makes use of occupational similarities across clusters as well as results of previous studies, we combine six clusters into three. Specifically, we combine *Banking* and *Finance & Insurance* into a *Financial Services* cluster. Similarly, we combine *Metalworking & Industrial Machinery* and *Primary Nonferrous Metals* into a cluster entitled *Advanced Manufacturing*. We also combine *Digital Equipment* and *Telecommunications* into a *Digital Equipment & Telecommunications* cluster.

The regional characteristics of the ten remaining candidate clusters may be summarized as follows:

1. ***Advanced Design Services*** offers good wages and high national growth.
2. The ***Advanced Manufacturing*** Cluster has at its heart *Metalworking and Industrial Machinery*; it is very large, has moderate wages, a very strong LQ, and a potential cluster expansion in *Primary Nonferrous Metals*.
3. ***Aerospace***, specifically engines and equipment, is strong in wages and LQ, but has been declining both locally and nationally.
4. ***Biotechnology*** shows reasonably good wages and growth, with an average LQ.
5. ***Business Management*** has strong wages and LQ but has experienced local job loss.
6. ***Chemicals & Plastics*** has relatively good wages and a very strong LQ.
7. The ***Digital Equipment & Telecommunications*** Cluster combines *Digital Equipment*, which is relatively strong in wages and weak in LQ, with *Telecommunications*, which adds strong growth.
8. The ***Financial Services*** Cluster (which includes *Banking* along with *Finance & Insurance*) is strong in wages and growth, with an average LQ.
9. ***Motor Vehicle Manufacturing*** has moderate wages, an average LQ, and good local growth.
10. ***Software & Data Processing*** is high on wages and growth, but low on LQ.

Cluster Validation

We validate our recommendation of the ten candidate clusters by, first, seeing how they compare to clusters from six previous studies for the Cincinnati USA region. Ultimately, target cluster selection involves strategic choice (selection of clusters based on regional advantage and expected payoff for the region) and an understanding of political (in keeping with statewide economic development efforts) and business priorities. Hence, an understanding of prior thinking on the topic of cluster identification and selection is required. Second, we validate our recommendation by linking our industrial clusters to occupational clusters that are strong in the region.

In the course of this analysis, six studies are given very careful examination:

- *An Ohio Technology-Based Economic Development Strategy* (March 2002, Battelle)
- *Hamilton County's Comparative and Competitive Advantages* (December 2003, Hamilton County Regional Planning Commission)
- *Northern Kentucky New Economy Marketing Strategy—Target Industry Study* (October 2003, Angelou Economics)
- *Target Marketing Strategy* (March 1999, The Wadley-Donovan Group)
- *Kentucky Clusters: Industrial Interdependence and Economic Competitiveness* (June 2001, University of North Carolina)
- *Technology Workforce Assessment of Cincinnati USA* (2003, Cypress Research Group)

Our results of this validation exercise are as follows:

- *Advanced Manufacturing* is featured in all six studies.
- *Advanced Design Services* is not identified in the other studies (but is validated by our occupational analysis below).
- *Aerospace* is identified as a cluster in two of the six studies.
- *Biotechnology* shows up in five of the six studies.
- *Business Management* has not been identified in any of the other studies (but is discovered through our factor analysis technique).
- *Chemicals & Plastics* is identified in three of the above six studies.
- *Digital Equipment & Telecommunications* is suggested in four of the studies.
- The *Financial Services* Cluster shows up as a cluster in two studies.
- Motor Vehicle Manufacturing appears in two studies.
- *Software & Data Processing* is mentioned in three studies.

Industries in the ten candidate clusters are then evaluated according to occupation match. The idea is to determine whether the Cincinnati MSA has a sufficient labor force in the *critical occupations* of the industries in each cluster. Critical occupations are those occupations that either require very high skill levels (a post-baccalaureate education) or account for an above-average (exceeds the average by at least one standard deviation) share of industry employment.

For each industry, we determine the average location quotient across all critical occupations, thus generating a summary location quotient for critical occupations. If this location quotient exceeds 1.00, then the Cincinnati area is specialized in the industry's critical occupations. As Table 10 shows, for each of the ten candidate clusters, at least 80 percent of the industries have occupational specialization. For seven of the clusters, 100 percent of the industries have occupational specialization.

Table 10: Percent of Industries in the Cluster with Strong Occupational Specialization

Cluster Name	Percentage	Industries Where Not Specialized
Advanced Manufacturing	100%	
Advanced Design Services	100%	
Aerospace	100%	
Biotechnology	100%	
Business Management	86%	Management Consulting Services (# 54161)
Chemicals & Plastics	100%	
Digital Equipment & Telecomm	92%	Personal & Household Goods R & M (# 8114)
Financial Services	80%	Securities & Commodities (# 5231)
Motor Vehicle Manufacturing	100%	
Software & Data Processing	100%	

We also use occupation data to come up with occupational clusters and then check to see whether our industrial clusters tend to employ workers from these clusters. Our approach is, first, to identify in which skilled occupations the Cincinnati MSA specializes (using occupation location quotients), and, second, to identify which groups of industries are heavily reliant on the area's occupational specialties. Such groups of industries would have substantial advantages in operating in the Cincinnati area.[13]

[13] Occupations with employment above 200 in the Cincinnati MSA have to have an occupation location quotient (LQ) above 1.5 and typically require a college degree. Occupations with employment above

In Table 11, we identify the set of industries that use these specialized occupations at least twice as much as the average industry. Most of the industries are within the industrial clusters that have been identified above as a potential fit for the Cincinnati metropolitan area. Many of the manufacturing industries would fall into the *Aerospace*, *Advanced Manufacturing*, *Chemicals & Plastics*, or *Motor Vehicle Manufacturing* Cluster. Looking outside of manufacturing, *Software publishers* (NAICS 5112) is a component of the *Software & Data Processing* Cluster, as is *Computer systems design & related services* (NAICS 5415).

Table 11: Industries Supported by Occupational Concentrations, and Related Clusters

NAICS	Industry	Clusters
323	Printing & related support activities	Printing & Publishing
326	Plastics & rubber products mfg	Chemicals and Plastics
331	Primary metal mfg	Metalworking and Machinery; Primary Nonferrous Metals
332	Fabricated metal product mfg	Metalworking and Machinery; Primary Nonferrous Metals; Motor Vehicle Manufacturing
333	Machinery mfg	Metalworking and Machinery
334	Computer & electronic product mfg	Information Technology
335	Electrical equip, appliance & component mfg	Information Technology
336	Transportation equipment mfg	Motor Vehicle Manufacturing Aerospace
3379	Other furniture related product mfg	*none*
3391	Medical equipment & supplies mfg	Biotechnology
4812	Nonscheduled air transportation	*none*
483	Water transportation	Coal and Ore Transportation
5112	Software publishers	Information Technology; Software and Data Processing
5413	Architectural, engineering & related services	Advanced Design Services
5415	Computer systems design & related services	Software and Data Processing
6215	Medical & diagnostic laboratories	Biotechnology
6219	Other ambulatory health care services	*none*
6231	Nursing care facilities	*none*

Analysis further reveals a modification to the *Advanced Design Services* Cluster. *Architecture, engineering & related services* (NAICS 5413), along with *Computer systems design* (NAICS 5415), both benefit from Cincinnati's occupational specialization in *engineering*, *drafting*, and *computer science*. This finding suggests that both 5413 and 5415 belong in the same cluster. *Specialized design services* (NAICS 5414: *industrial design, graphic design*), also is concentrated in the Cincinnati MSA (based on its industrial location quotient), even though this industry is not identified as a strong occupational match. Taken

500 have to have a LQ above 1.3 and typically require a high school degree. Occupations with employment above 1,000 have to have an LQ above 1.2, and occupations with employment above 2,000 have to have an LQ above 1.1.

together, 5413, 5414, and 5415 indicate that *Advanced Design Services* is another potential industrial cluster with a good occupational fit for the Cincinnati area. The core of occupational specialties that underpin this cluster is in the professional and technical occupations, particularly in design specialties ranging from *architecture* to *engineering* to *graphic design*, and *computer science*. Further, this integration of design fields in the cluster is consistent with the combination of the College of Engineering and the College of Design, Art, Architecture & Planning at the University of Cincinnati.

Section 6: Portfolio of "Candidate Clusters"

Table 12 summarizes some key characteristics of the ten candidate clusters.

Table 12: Ten Candidate Clusters for the Cincinnati Metropolitan Statistical Area (MSA)

Cluster (and components)	2001 MSA Emplmt.*	2001 US Emplmt.	2001 LQ	% of MSA	MSA % Chg	US % Chg	2001 Average Wages
Office-Oriented							
Advanced Design Services	16,173	1,942,048	1.02	1.7	7.1	9.3	$47,493
Business Management	47,393	4,549,784	1.27	5.0	-1.4	6.7	$61,560
Financial Services	55,567	6,829,208	1.00	5.9	7.6	8.6	$56,591
(Banking)	30,591	4,111,514	0.91	3.3	10.1	13.1	$64,248
(Securities and Insurance)	25,019	2,751,724	1.11	2.7	4.8	2.5	$45,215
Technology-Oriented							
Biotechnology	45,063	5,783,687	0.95	4.8	9.8	6.6	$41,074
Digital Equipment & Telecomm	25,267	3,915,387	0.79	2.7	16.9	6.4	$55,524
(Digital Equipment)	14,904	2,505,432	0.73	1.6	7.0	-0.4	$56,605
(Telecommunications)	14,703	1,882,254	0.96	1.6	23.6	14.8	$49,075
Software and Data Processing	15,442	2,387,395	0.79	1.6	20.5	33.7	$69,197
Manufacturing-Oriented							
Advanced Manufacturing	62,951	5,755,002	1.34	6.7	-0.1	-5.6	$38,053
(Metalworking and Industrial Machinery)	56,209	5,064,429	1.36	6.0	-1.2	-5.4	$37,980
(Primary Nonferrous Metals)	10,169	1,099,303	1.13	1.1	6.6	-7.3	$35,852
Aerospace	9,069	902,879	1.23	1.0	-7.6	-10.4	$57,900
Chemicals and Plastics	20,870	1,808,794	1.41	2.2	1.0	-4.9	$40,716
Motor Vehicle Manufacturing	19,149	2,331,558	1.01	2.0	14.2	-3.6	$36,228

* Clusters are based on private employment only, which understates activity in some cases, such as in Biotechnology.

In the cluster descriptions that follow, modifications of some definitions are recommended in order to match more closely the lists of industries found in similar clusters in the six studies discussed in the previous section. Again, the ten candidate clusters are not rank-ordered. They are listed alphabetically by sub-group: office-oriented, technology-oriented, and manufacturing-oriented clusters.

As noted previously, industries[14] within each cluster are related to one another by being part of the same supply chain. Each pair of industries in the same supply-chain cluster are linked in one of the following three ways:

1. one buys from (sells to) the other, either directly or indirectly;
2. their purchase patterns from other industries are similar; or
3. they have similar sales patterns to other industries.

[14] In some cases, the industries identified in this section have alphabetical characters in their codes. Such an occurrence indicates that the listed industry is a combination of two or more NAICS industries.

ADVANCED DESIGN SERVICES

Four industries related to advanced design services are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

3323 Architectural and structural metal products
3351 Electric lighting equipment
5324 Machinery and equipment rental and leasing
5413 Architectural and engineering services

This cluster offers good wages (2001 average of $47,493). National employment growth between 1998 and 2001 exceeded overall economic growth. Although local growth was not as strong, the cluster's location quotient is still average (1.02). This cluster had total private sector employment, as reported in County Business Patterns (CBP) of 16,173 in 2001, which accounts for 1.7 percent of the MSA total.

Some of these industries identified in the factor analysis might fit better as part of the supporting-cluster infrastructure than as components of the cluster itself. Two other industries would seem to fit well here, on the basis of their close industry associations and the occupational linkages that have been identified between them and the core industry, *architectural and engineering services*. They are

5414 Specialized design services

5415 Computer systems design & related services

Together, these industries could form a small, but important, *Advanced Design Services* Cluster. The national outlook for this cluster is one of very rapid growth.

BUSINESS MANAGEMENT

Six industries related to business management are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

4920 Courier and messenger services
4930 Warehousing and storage
5142 Data processing services
5324 Machinery and equipment rental and leasing
5418 Advertising and related services
5500 Management of companies and enterprises

The Business Management Cluster is characterized by very high wages (2001 average of $61,560) and average national growth between 1998 and 2001 (6.7 %). The cluster's location quotient is 1.27, indicative of a strong competitive advantage, but it has been falling because of decreasing local employment. This cluster had CBP-reported employment of 47,393 in 2001, which accounts for 5.0 percent of the total MSA employment, but 663 less than in 1998. Economic development efforts in this area should focus heavily on retention and expansion, as well as attraction.

FINANCIAL SERVICES

Six industries related to financial services are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

4850	Transit and ground passenger transportation
52A0	Monetary oversight and credit intermediation
5230	Securities, commodity contracts, investments
5240	Insurance carriers and related services
5250	Funds, trusts, and other financial vehicles
5321	Automotive equipment rental and leasing

Four of these industries were grouped together in *Banking*, and three formed a *Securities and Insurance* group. The industry held in common is NAICS 5250 - *funds, trusts, and other financial vehicles*.

The *Financial Services* Cluster shows very good wages (2001 average of $56,591). Both local and national employment growth exceeded the overall national economy's performance between 1998 and 2001. The cluster's location quotient is 1.00, right at the national average. This cluster had CBP-reported employment of 55,567 in 2001, which accounts for 5.9 percent of the total for the Cincinnati area.

If this cluster is selected as a target, it may be appropriate to focus on the four "core" industries (the "52" series). This would be more consistent with the cluster definition in the analysis done for Tri-ED. The two industries that are associated with transportation may fit better into a support-of-market role.

Technology-Oriented Clusters

BIOTECHNOLOGY

Four industries related to biotechnology are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

3254	Pharmaceuticals and medicines
3391	Medical equipment and supplies
5419	Other professional and technical services
6210	Ambulatory health care services

Based on the frequency with which they are mentioned in similarly-focused studies, two other industries might be included here. They are

3345	Electronic instruments
5417	R & D in the physical, engineering, and life sciences

The case could be made as well that 5419 and most of 6210 (all but 6215: medical and diagnostic laboratories) should not be included.

The Biotechnology Cluster shows reasonably good wages (2001 average of $41,074) and local growth that exceeded national growth between 1998 and 2001. Because of this local growth, the cluster's location quotient has risen to a respectable 0.95, not yet at the national average, but growing. This cluster had CBP-reported employment of 45,063 in 2001, which accounts for 4.8 percent of the total. This figure would be reduced by an exclusion of the non-laboratory components of 6210 and increased by inclusion of the two additional recommended industries. More importantly, related public-sector employment at places such as the University of Cincinnati Medical Center, a very important participant in this cluster, is not included in this employment figure.

DIGITAL EQUIPMENT & TELECOMM

Nine industries related to digital equipment and telecommunications are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

- 3333 Commercial and service industry machinery
- 3341 Computer and peripheral equipment
- 334A Audio, video, and communications equipment
- 3344 Semiconductors and electronic components
- 3345 Electronic instruments
- 5112 Software
- 5133 Telecommunications
- 5414 Specialized design services
- 811A Electronic, commercial, and household goods repair

Seven of these industries were grouped together in *Digital Equipment*, and three formed a *Telecommunications* group. The industry held in common is 811A -*electronic, commercial, and household goods repair*, an industry that other studies may have overlooked. On the other hand, almost all other industries are mentioned in either or both of the Ohio and Hamilton County analyses. *Software* was omitted from both, and it might be better to reserve it for its own cluster.

The *Digital Equipment & Telecomm* Cluster pays very good wages (2001 average of $55,524), and local growth exceeded national growth by more than 10 percent between 1998 and 2001. Because of this local growth, the cluster's location quotient has risen to 0.79, below average, but growing. This cluster had CBP-reported employment of 25,267 in 2001, which accounts for 2.7 percent of the total in the MSA.

SOFTWARE & DATA PROCESSING

Five industries related to software and data processing are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

- 3341 Computer and peripheral equipment
- 5112 Software
- 5141 Information services
- 5142 Data processing services
- 5415 Computer systems design and related services

The *Software & Data Processing* Cluster has the highest wage level within the portfolio of candidate clusters (2001 average of $69,197). Local growth trailed national growth between 1998 and 2001, but still represented a 20 percent increase in employment. The cluster's location quotient is one of the lowest (0.79), but the growth potential of this cluster offers opportunity for the area to develop a specialization here. This cluster had CBP-reported employment of 15,442 in 2001, which accounts for 1.6 percent of the MSA total.

Similar clusters in the studies for Ohio and Hamilton County do not include any manufacturing industry in this cluster. Other adjustments might also be considered in order to define a cluster that is more effectively focused on local strengths and growth potential.

Manufacturing-Oriented Clusters

ADVANCED MANUFACTURING

Twenty-four industries related to advanced manufacturing are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

2122 Metal ores [no emplmt. data available]
331A Primary ferrous metal products
331B Primary nonferrous metal products
3315 Foundry products
3321 Forgings and stampings
3322 Cutlery and handtools
3323 Architectural and structural metal products
3324 Boilers, tanks, and shipping containers
332A Ordnance and accessories
332B Other fabricated metal products
3331 Agriculture, construction, and mining machinery
3332 Industrial machinery
3333 Commercial and service industry machinery
3334 HVAC and commercial refrigeration equipment
3335 Metalworking machinery
3336 Turbine and power transmission equipment
3339 Other general purpose machinery
3351 Electric lighting equipment
3352 Household appliances
3353 Electrical equipment
3359 Other electrical equipment and components
336A Motor vehicle bodies, trailers, and parts
336B Other transportation equipment
3399 Other miscellaneous manufactured products

Most of these industries were grouped together in *Metalworking & Industrial Machinery*, while the remaining few fit together around nonferrous metals.

This cluster shows moderate wages (2001 average of $38,053), but some of the industries and firms within it can be expected to pay more. Locally, employment was unchanged between 1998 and 2001, while it declined nationally. Its location quotient is 1.34, suggesting that the MSA has some real competitive advantage. This cluster had CBP-reported employment of 62,951 in 2001, which accounts for 6.7 percent of total employment in the Cincinnati area.

This very broad cluster is sometimes defined even more broadly to include industries that are part of the *Motor Vehicle*, *Aerospace*, and *Biotechnology* Clusters. Overall, the list of industries matches rather well with the results of merging similar clusters from the studies for Ohio and Hamilton County. Two industries could be dropped (2122: *metal ores*; 336A: *motor vehicle bodies, trailers, and parts*).

AEROSPACE

Two industries related to aerospace are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

3345 Electronic instruments
3364 Aerospace products and parts

The Aerospace Cluster has very good wages (2001 average of $57,900). Employment declined locally between 1998 and 2001, but by less than the national rate of loss. Its location quotient of 1.23 suggests some degree of competitive advantage. This cluster had CBP-reported employment of 9,069 in 2001, which accounts for 1.0 percent of the total in the MSA.

Since the actual assembly of aircraft and space vehicles is carried out in only a handful of U.S. cities, this might be more accurately defined as an *Aerospace Parts & Equipment* Cluster, a change that would significantly increase the location quotient measure. In addition, a few other industries might be included here, based on definitions used by Ohio (541330 - *engineering services*) and Tri-ED (*related repair and maintenance:* NAICS codes 811219 and 811310).

CHEMICALS & PLASTICS

Eight industries related to chemicals and plastics are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

3221 Pulp, paper, and paperboard
3251 Basic chemicals
3252 Resins, rubber, and artificial fibers
3253 Agricultural chemicals
3255 Paints, coatings, and adhesives
3256 Soaps, cleaning compounds, and toiletries
3259 Other chemical products
3260 Plastics and rubber products

The *Chemicals & Plastics* Cluster shows reasonably good wages (2001 average of $40,716). It experienced a small local increase in employment, despite a national decline between 1998 and 2001. Its location quotient of 1.41 indicates a significant competitive advantage in at least some of its component industries. This cluster had CBP-reported employment of 20,870 in 2001, which accounts for 2.2 percent of the Cincinnati area's total.

All of the industries in this cluster were mentioned in either or both of the Ohio and Hamilton County analyses, except NAICS 3221 - *pulp, paper, and paperboard*.

MOTOR VEHICLE MANUFACTURING

Six industries related to motor vehicle manufacturing are identified through the factor analysis as having a substantial degree of economic linkage with one another. They are

3160 Leather and allied products
3315 Foundry products
3336 Turbine and power transmission equipment
3361 Motor vehicles
336A Motor vehicle bodies, trailers, and parts
8111 Automotive repair and maintenance

This cluster shows moderate wages (2001 average of $36,228), though there can be considerable variation within it. It experienced a substantial local increase in employment, despite a national decline between 1998 and 2001. Its location quotient is 1.01, indicating an average level of concentration. This cluster had CBP-reported employment of 19,149 in 2001, which accounts for 2.0 percent of the MSA total.

A number of other industries might be added to this cluster, particularly if it is more narrowly targeted toward automotive supply. The Tri-ED study takes such an approach, excluding 3361 - *motor vehicles*, but incorporating several other closely-related industries. They are

332 Fabricated metals
33392 Transportation machinery
3353 Electrical equipment

Together, but excluding 3361, these industries would best be described as an *Automotive Suppliers* Cluster.

Inter-Industry Cluster Linkages

Inter-industry linkages are shown in Figures 1 through 3 for three of the ten clusters. Manufacturing industries are in rectangular shapes, while service industries are represented by ovals. Sizes of the rectangles and ovals are not to scale. An arrow shown in a particular direction signifies that at least five percent of the sales of the seller or five percent of the purchases of the buyer are accounted for by its cluster partner. Thick arrows require at least 40 percent of a buyer's purchases or 40 percent of a seller's sales accounted for by its partner industry.

Figure 1 depicts the structure of the *Biotechnology* Cluster. The pharmaceutical industry sells to both *ambulatory health care services* and *veterinary services* (part of NAICS 5419, *other professional & technical services*). Also linked are *medical equipment & supplies* and *electronic medical instruments*, which sell to *ambulatory health care services*. The pharmaceutical industry relies on research provided by 5417, *scientific research & development services*. The thick arrow shows a strong linkage between medical equipment and ambulatory health care, while other linkages are not as strong. No reverse linkage is strong enough to be highlighted.

Figure 2 shows the buyer-seller relationships among industries in the *Chemicals & Plastics* Cluster. In this cluster, *basic chemicals* sells to all seven other industries depicted. Two of the industries, *agricultural chemicals* and *pulp, paper, & paperboard*, have no additional linkages. Other industries, including plastics and paints, buy from resins as well as *basic chemicals*. Finally, the *soaps, cleaning compounds, and toiletries* industry buys from plastics. The two strongest linkages are seen to be between *basic chemicals* and resins and between resins and plastics. Interestingly, although *basic chemicals* is an input sector for the pharmaceutical industry, the value of the linkage represents less than five percent of total intermediate purchases of the latter industry and less than five percent of the intermediate sales of *basic chemicals*. Indeed, the two industries do not fit in the same cluster according to our input-output analysis.

Figure 3 shows a representation of the *Software & Data Processing* Cluster. In this cluster, the supply-chain linkages are fairly simple, with goods and services moving in a single direction between sectors. 79 percent of the software industry's sales are purchased by *computers & peripheral equipment*, hence, the thick arrow from software to computers. Meanwhile, 14 percent, 12 percent, and 5 percent of purchases of *information services*, *data processing services*, and *computer systems design*, respectively, are accounted for by *computers & peripheral equipment*. Again, as was true for the *Biotechnology* Cluster, no reverse linkage is strong enough to be highlighted.

Figure 1. Biotechnology

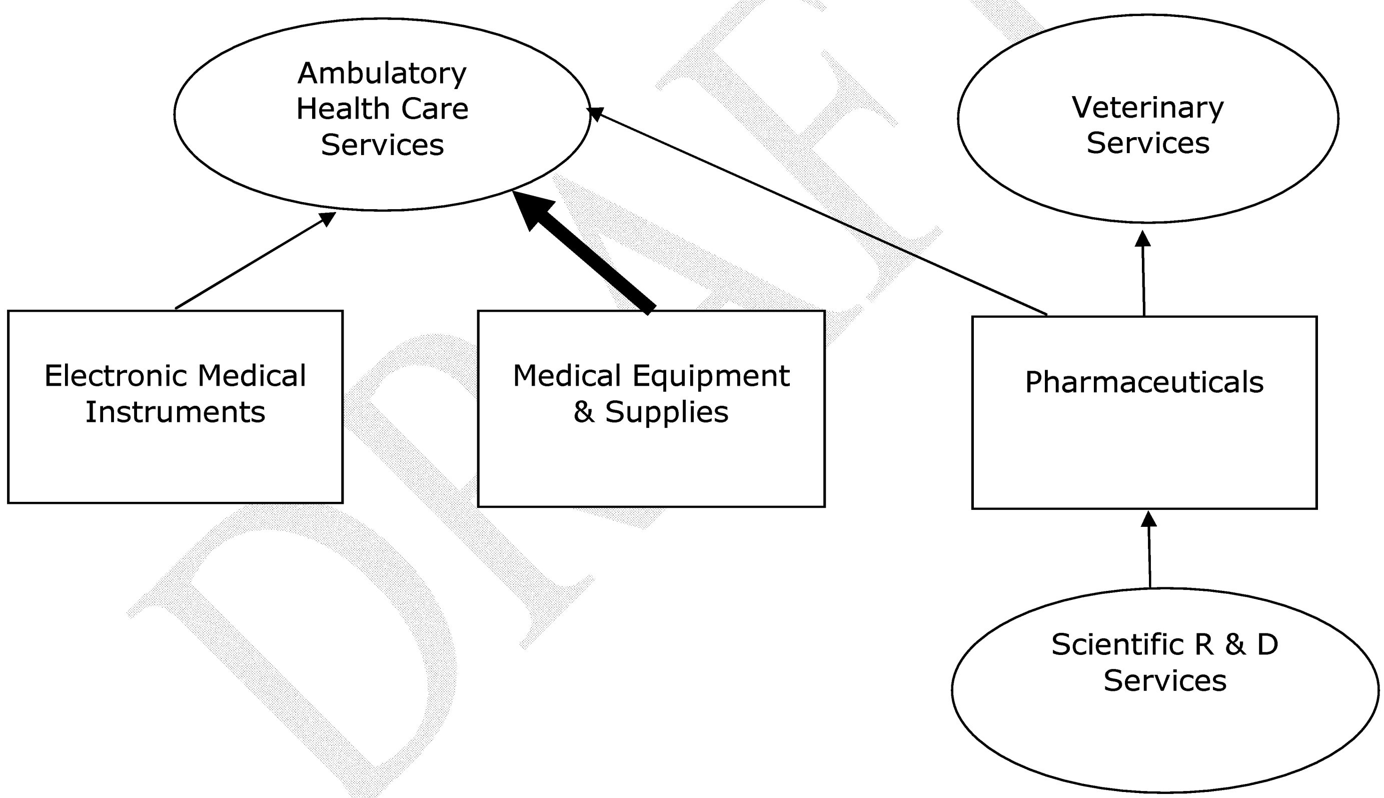


Figure 2. Chemicals and Plastics

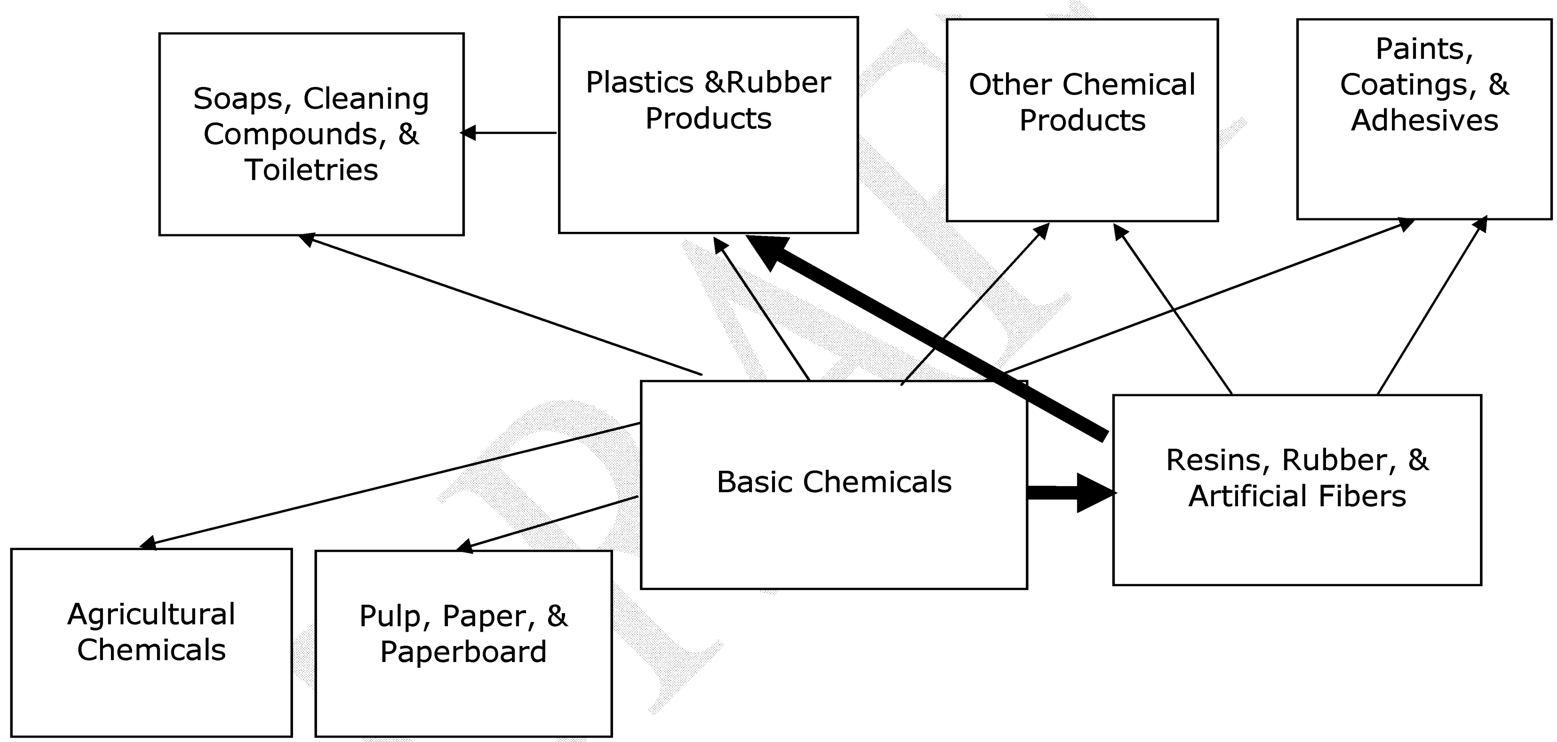
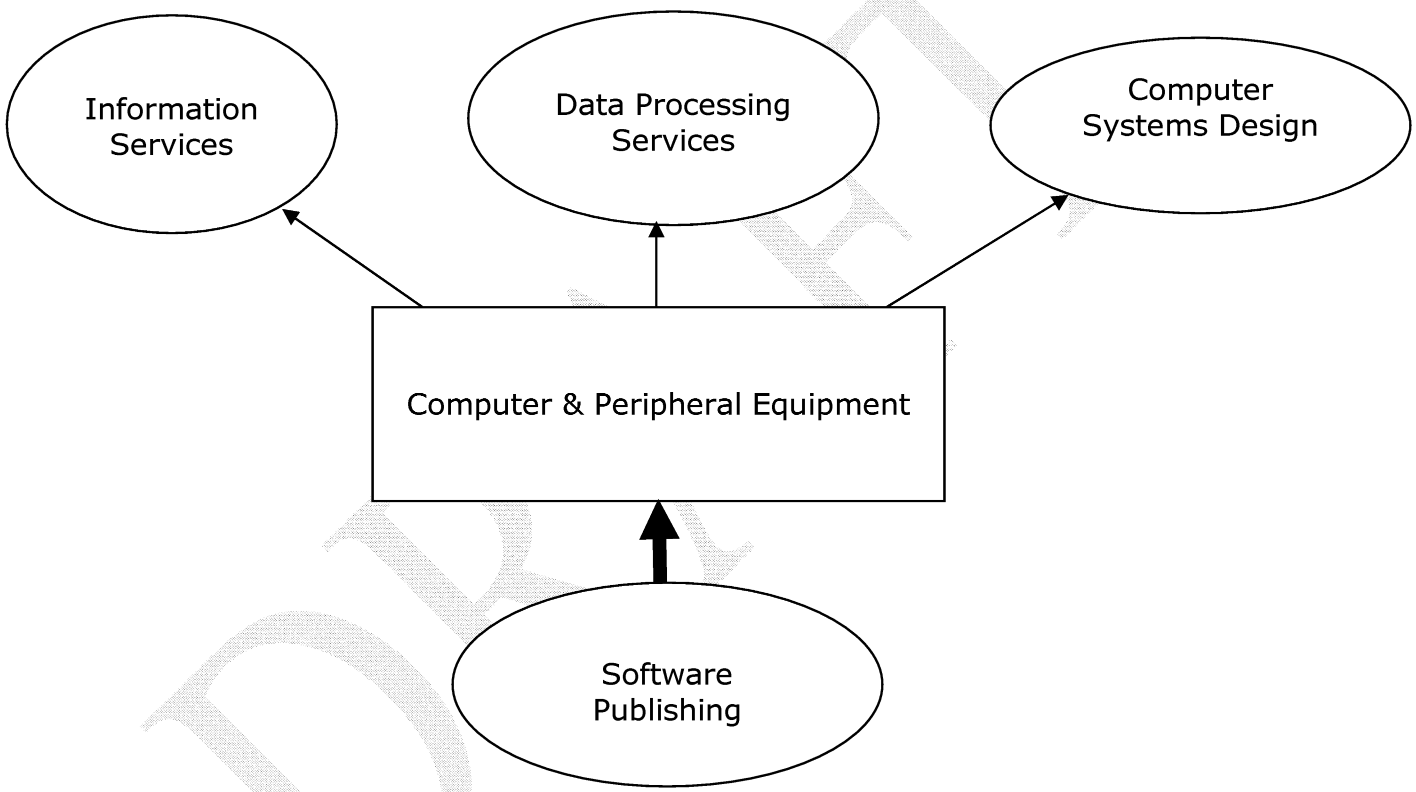


Figure 3. Software and Data Processing



Appendix A

There are variations in industry specialization between geographic sectors within the MSA. Using MSA location quotients,[15] the five most highly specialized industry sectors are identified for each geographic sector. The only industry sector without any geographic specialization is real estate.

2001 Above Average Industry Groups for Individual Regions

	Hamilton	Butler	Eastern	Tri-ED	Southern	Western
Forest, fish, hunt, & agri. support			X	X		X
Mining		X			X	X
Utilities			X			X
Construction			X			
Manufacturing		X			X	
Wholesale trade					X	
Retail trade					X	
Transportation & warehousing				X		
Information	X		X			
Finance & insurance		X				
Real estate & rental & leasing						
Professional, scientific & technical	X					
Management of companies	X					
Admin, support, waste mgt, remediation	X					
Educational services	X			X		
Health care & social assistance		X				
Arts, entertainment & recreation			X			X
Accommodation & food services				X	X	X
Other services (except public admin)		X				
Auxiliaries				X		

- Hamilton County is above average in *Information*; the various professional and business services; and *Educational services*.
- Butler County is above average in *Mining*; *Manufacturing*; *Finance & insurance*; *Health care & social assistance*; and *Other services*.
- The Eastern tier is above average in *Forestry, fishing, hunting, & agricultural support*; *Utilities*; *Construction*; *Information*; and *Arts, entertainment & recreation*.
- The Tri-ED region is above average in *Forestry, fishing, hunting, & agricultural support*; *Transportation & warehousing*; *Educational services*; *Accommodation & food services*; and *Auxiliaries*.
- The Southern tier is above average in *Mining*; *Manufacturing*; *Wholesale trade*; *Retail trade*; and *Accommodation & food services*.
- The Western tier is above average in *Forestry, fishing, hunting, & agricultural support*; *Mining*; *Utilities*; *Arts, entertainment & recreation*; and *Accommodation & food services*.

[15] A regional location quotient is computed as sector employment in a specific industry as a percentage of total sector employment divided by the MSA employment in the same industry as a percentage of total MSA employment.

Appendix B

The table below compares the geographic sectors in their specialization by occupation. Using occupation location quotients (how each sector compares to the MSA average),[16] the five most highly specialized occupation groups are identified for each sector. Hamilton County specializes in sciences, legal, artistic, and healthcare occupations. Specializations in other geographic sectors tend to connect with industry sectors in which they are strong. Several occupation groups, such as *management* and *farming/fishing/forestry*, do not show any geographic specialization.

Employment by Occupation for Individual Regions

Occupation Group	Hamilton	Butler	Eastern	Tri-ED	Southern	Western
Management						
Business and financial operations						
Computer and mathematical science	X					
Architecture and engineering			X		X	
Life, physical, and social science	X					
Community and social services		X				
Legal	X					
Education, training, and library				X		
Arts, design, entertainment, sports, & media	X					
Healthcare practitioners and technical	X					
Healthcare support		X				
Protective service						X
Food preparation and serving related			X	X		X
Building and grounds cleaning & maintenance						X
Personal care and service				X		X
Sales and related					X	
Office and administrative support						
Farming, fishing, and forestry						
Construction and extraction			X			X
Installation, maintenance, and repair		X	X	X	X	
Production		X	X		X	
Transportation and material moving		X		X	X	

[16] The occupation location quotient is defined as the percentage share of a particular occupation in a geographic sector of the MSA divided by the percentage share of that occupation in the Cincinnati MSA.

APPENDIX C

National Supply-Chain Clusters

Cluster	Industries in Cluster*
Aerospace	Aerospace products & parts (3364), Electronic instruments (3345)
Agriculture	Agriculture & forestry support services (1150), Agricultural chemicals (3253), Animal products (1120), Tobacco products (3122)
Advanced Design Services	Architectural & engineering services (5413), Machinery & equipment rental & leasing (5324), Electric lighting equipment (3351), Architectural & structural metal products (3323)
Banking	Securities, commodity contracts, & investments (5230), Funds, trusts, & other financial vehicles (5250), Automotive equipment rental & leasing (5321), Monetary oversight & credit intermediation (52A0)
Biotechnology	Pharmaceuticals & medicines (3254), Medical equipment & supplies (3391), Ambulatory health care services (6210), Other professional & technical services, including veterinary services (5419)
Business Management	Management of companies & enterprises (5500), Advertising & related services (5418), Warehousing & storage (4930), Courier & messenger services (4920), Machinery & equipment rental & leasing (5324), Data processing services (5142)
Business Support & Services	Courier & messenger services (4920), Federal government enterprise services (S001), Air transportation (4810), Monetary oversight & credit intermediation (52A0), Accommodations (7210), Management & technical consulting services (5416), Employment services (5613), All other administrative & support services (561A), Food & beverage services to customer order (7220), Transit & ground passenger transportation (4850)
Chemicals & Plastics	Basic chemicals (3251), Resins, rubber, & artificial fibers (3252), Other chemical products (3259), Paints, coatings, & adhesives (3255), Soaps, cleaning compounds, & toiletries (3256), Agricultural chemicals (3253), Pulp, paper, & paperboard (3221), Plastics & rubber products (3260)
Construction Materials	Nonmetallic mineral products (3270), Retail trade (4A00), Furniture & related products (3370), HVAC & commercial refrigeration equipment (3334), Paints, coatings, & adhesives (3255), Wood products (3210), Other electrical equipment & components (3359), Architectural & structural metal products (3323), Architectural & engineering services (5413), Household appliances (3352), Nonmetallic minerals (2123), Electric lighting equipment (3351)

* Industries are listed in the order of statistical strength of association with the cluster.

National Supply-Chain Clusters (Continued)

Cluster	Industries in Cluster*
Digital Equipment	Audio, video, & communications equipment (334A), Semiconductors & electronic components (3344), Electronic instruments (3345), Computer & peripheral equipment (3341), Electronic, commercial, & household goods repair (811A), Commercial & service industry machinery (3333), Software (5112)
Entertainment	Performing arts, spectator sports, & museums (71A0)
Food & Beverages	Food products (3110), Fish & other nonfarm animals (1140), Beverage products (3121), Animal products (1120), Food & beverage services to customer order (7220), Crop products (1110), Converted paper products (3222), Leather & allied products (3160), Wholesale trade (4200), Boilers, tanks, & shipping containers (3324)
Metalworking & Industrial Machinery	Other transportation equipment (336B), Agriculture, construction, & mining machinery (3331), Other general purpose machinery (3339), Industrial machinery (3332), Cutlery & handtools (3322), Other fabricated metal products (332B), Turbine & power transmission equipment (3336), Metalworking machinery (3335), Ordnance & accessories (332A), Primary ferrous metal products (331A), Electrical equipment (3353), Motor vehicle bodies, trailers, & parts (336A), Forgings & stampings (3321), Household appliances (3352), Commercial & service industry machinery (3333), Electric lighting equipment (3351), Architectural & structural metal products (3323), HVAC & commercial refrigeration equipment (3334), Other miscellaneous manufactured products (3399)
Mining & Transportation	Coal mining (2121), Rail transportation (4820), Water transportation (4830), Nonmetallic mineral mining & quarrying (2123)
Motor Vehicle Manufacturing	Motor vehicles (3361), Automotive repair & maintenance (8111), Foundry products (3315), Leather & allied products (3160), Motor vehicle bodies, trailers, & parts (336A), Turbine & power transmission equipment (3336)
Movies, TV, & Radio	Motion pictures & sound recordings (5120), Radio & television broadcasting (5131), Magnetic media products (3346), Cable networks & program distribution (5132), Advertising & related services (5418)
Oil & Gas Extraction & Transportation	Oil & gas (2110), Pipeline transportation (4860)
Petroleum Products	Rights to nonfinancial intangible assets (5330), Petroleum & coal products (3240), Natural gas distribution (2212), Mining support services (2130), Electric power (2211)
Primary Nonferrous Metals	Primary nonferrous metal products (331B), Boilers, tanks, & shipping containers (3324), Foundry Products (3315), Metal ores (2122), Other electrical equipment & components (3359), Other miscellaneous manufactured products (3399)

* Industries are listed in the order of statistical strength of association with the cluster.

National Supply-Chain Clusters (Continued)

Cluster	Industries in Cluster*
Printing & Publishing	Newspapers, books, and directories (5111), Printed products (3230), Information services (5141), Converted paper products (3222), Civic, social, professional, and similar organizations (813B), Pulp, paper, and paperboard (3221), Other chemical products (3259)
Securities & Insurance	Insurance carriers and related services (5240), Funds, trusts, and other financial vehicles (5250), Transit and ground passenger transportation (4850)
Software & Data Processing	Software publishing (5112), Information services (5141), Computer & peripheral equipment (3341), Data processing services (5142), Computer systems design & related services (5415)
Telecommunications	Telecommunications (5133), Specialized design services (5414), Electronic, commercial, and household goods repair (811A)
Textiles & Apparel	Apparel (3150), Yarn, fabrics, and other textile mill products (3130), Non-apparel textile products (3140)
Transportation Support & Services	Sightseeing transportation & transportation support (48A0), Travel arrangement & reservation services (5615), Water transportation (4830), Management of companies & enterprises (5500)
Truck Transportation	Truck transportation (4840), Federal government enterprise services (S001), Sightseeing transportation & transportation support (48A0)
Urban Services	Educational services (6100), Personal & laundry services (8120), Warehousing & storage (4930), Real estate (5310), Waste management & remediation services (5620), Ambulatory health care services (6210), Legal services (5411), Social assistance (6240), Civic, social, professional, & similar organizations (813B), Amusements, gambling, & recreation (7130), Accounting & bookkeeping services (5412), Consumer goods & general rentals (532A), Scientific research & development services (5417), Maintenance & repair construction (2303), Management & technical consulting services (5416), Other professional & technical services (5419), Electric power (2211), Crop products (1110), All other administrative & support services (561A), Travel arrangement & reservation services (5615), Retail trade (4A00), Specialized design services (5414), Accommodations (7210), Water & sewage treatment (2213), Machinery & equipment rental & leasing (5324)
Utilities	State & local government enterprise services (S002), Water & sewage treatment (2213), Electric power (2211), Maintenance & repair construction (2303), Pipeline transportation (4860)
Wood Products	Forestry and logging products (1130), Wood products (3210), Pulp, paper, and paperboard (3221)

* Industries are listed in the order of statistical strength of association with the cluster.

Appendix D

Methods of Economic Analysis and Data Analysis Notes

Location Quotient Analysis

The location quotient (LQ) method of analysis is a measure of the relative concentration or specialization of economic activity (i.e., the comparative advantage) in an area. It is often used in economic base studies as an initial step in understanding which sectors are driving a region's economy, and it most often uses employment as the gauge.

The location quotient method begins by determining the proportion of a local area's total employment that is in each industry cluster. The same is then done for a much larger area, typically the nation. The local proportion is then divided by the national proportion (hence the name "location quotient"). Those industry clusters where the local proportion of employment exceeds the proportion of the national area (a location quotient greater than 1.00) are considered to be export-oriented to the degree that their location quotients exceed 1.00, and therefore part of the economic base. Other industries or clusters are assumed to be largely serving local demand and are therefore non-basic. A location quotient that is substantially greater than 1.00 suggests that the cluster has some local advantage in production. Clusters with high location quotients may be targeted as clusters with a high level of exports, following from the premise that if a greater portion of people are employed in this cluster, then the region produces relatively more of this product and sells the excess to people outside the region.

Employment Change

Location quotients are helpful, particularly in giving a sense of how the composition of local employment differs from national patterns. However, they are static and by themselves provide limited guidance for economic development. A number of additional questions must be answered in order to gain a fuller understanding of the factors affecting the health of the local economy. One such question is "What parts of the local economy have gained or lost employees?"

Shift-Share Analysis

Analysis of the data leads, in turn, to other questions, such as "How have local industry clusters performed relative to the nation?" "Which ones have a comparative advantage?" and "Have employment changes been caused by local or external forces?" A procedure called "shift-share analysis" helps answer these questions. Shift-share analysis examines the shifts over time in the employment patterns of a local or regional economy compared to the nation. Its method is to take the change in employment for an area and decompose it into the three sources that account the change: overall national economic growth, economic shifts among the various economic sectors, and local economic growth.

The National Growth Component The first source of change is the growth or contraction in the American economy. Relying on the concept that "a rising tide lifts all boats," national growth in employment is assumed to affect the total employment in the region. The national growth component is that part of the change in total employment in a region ascribed to the rate of growth of employment in the nation as a whole. The effect of the national growth component is felt most acutely during the peaks and valleys of the business cycle, i.e. during recessions and boom times.

The Industrial Mix Component The second element in the analysis is the extent to which an industry cluster has grown, net of effects from the national growth component. This component is determined by calculating the rate of change for an economic sector at the national level and subtracting from it the national growth component. In this way, the second aspect of the shift-share analysis, the industrial mix component, considers the effects of growth or decline in the individual clusters. This component of the shift-share analysis identifies how various clusters are affected by growth or decline at the national level. For example, there has been a steady decline in almost all manufacturing clusters. Therefore, areas that have been highly dependent on manufacturing clusters have a more negative overall industrial mix component.

The Local Share The local share reflects how a region's industries and clusters performed compared to the national average for each industry. In other words, the third and final component of shift-share analysis reflects the difference between the actual change in employment and the employment change to be expected if each industry cluster grew at the national rate. A positive local share component generally indicates that an area has a competitive advantage, which may be due to local firms or clusters having superior technology, management, or market access, or the local labor force having higher productivity and/or lower wages. A negative local share component could be caused by local shortcomings in one or more of these areas.

Using *County Business Patterns* Data

Age of the Data *County Business Patterns* contains the latest available detailed data on industries at the county level. This data is generally released approximately two to two and a half years after collection. The latest available data is from 2001, at the beginning of the recent recession.

Coverage of the Data *County Business Patterns* covers private, non-agricultural employment. While this includes the vast majority of all business employment, it is important to keep in mind that certain types of employment are omitted, specifically: agricultural employment, government employment, and the self-employed. Most significantly for this analysis is the omission of the Cincinnati area's largest employer, the University of Cincinnati, which has approximately 15,400 employees. This is a particularly important factor when considering those clusters that rely heavily on university-based research.

Data Suppression The widespread existence of data suppression in the *County Business Patterns* database is a major obstacle to conducting a regional industry analysis. Because this database strives to protect the anonymity of individual businesses, employment is suppressed for industries where there only are a handful of employers within the reported geographic area. To overcome this obstacle, the Economics Center developed a method for estimating the value of these suppressed cells.

Industry Classification Beginning with the 1997 Economic Census and the 1998 data from *County Business Patterns*, the North American Industry Classification System (NAICS) has replaced the U.S. Standard Industrial Classification (SIC) system. NAICS completely reshapes the way industries are categorized. It places a greater focus on *HOW* goods and services are produced, whereas the old SIC system was organized according to *WHAT* was produced. Those responsible for designing the new system identify several other benefits:

Relevance - NAICS identifies hundreds of new, emerging, and advanced technology industries. And NAICS reorganizes industries into more meaningful sectors--especially in the service-producing segments of the economy.

International Comparability - NAICS was developed in cooperation with Statistics Canada and Mexico's INEGI. NAICS provides for comparable statistics among the three NAFTA trading partners.

Consistency - NAICS defined industries according to a consistent principle: businesses that use similar production processes are grouped together.

Adaptability - NAICS will be reviewed every 5 years, so classifications and information keep up with our changing economy.

References

Audretsch D.B. and Feldman M.P. (1996) Knowledge spillovers and the geography of innovation and production, **AER 86**, 630-640.

Department Of Commerce Bureau of Economic Analysis (1997) **Input-Output Accounts: The Use of Commodities by Industries after Redefinitions**.

Doeringer P.B. and Terkla D.G. (1995) Business strategy and cross-industry clusters, **Economic Development Quarterly 9**, 225-37.

Feser E. and Bergman E. (2000) National industry cluster templates: a framework for applied regional cluster analysis, **Reg. Studies 34**, 1-19.

Markusen A. (1996) Sticky places in slippery space: a typology of industrial districts, **Econ. Geogr. 72**, 293-313.

Porter M.E. (1990) **The Competitive Advantage of Nations**, Basic Books, New York.

Porter M. E. (1998) Clusters and the new economics of competition, **Harvard Business Review 76**, 77-90.

Yamawaki H. (2002) The evolution and structure of industrial clusters in Japan, **Small Business Economics 18,** 121-140.

Appendix F

ATTACHMENT B
Southwest Ohio Career Resource One Stop Center
Budget 7/01/04 to 6/30/05

One Stop System Operating Cost Items	Annual Cost	Description of Shared Operating Cost Items
One Stop Management Cost Pool	245,920.00	RFP'd One Stop Operator Contract for the vendor ACS to perform One Stop Management duties. The One Stop management related expenses are as follows: - .25 FTE accounting services such as accounts payable, invoicing, financial reports for center services, - .25 One Stop Management clerical support, - 1.3 FTE maintaining and updating data and communication network, common area software, and resource and training room PC's, .6 FTE One Stop Management including coordination and planning with partners, Workforce Policy Board and jurisdictions, - and other management cost such as audit fees
Facilities Cost Pool	129,769.00	Rent 76.9% of space at 1811 Losantiville 3rd Floor, which includes utilities and cleaning services
Office Equipment Cost Pool	37,292.00	Postage Meter rental and maintenance, three copiers rental and maintenance, T1 line and LAN server, 2 fax machine maintenance service, maintenance of server and website for the Resource Room and common tracking for all partners and customers
Office Supply Cost Pool	49,790.00	Telephone local and long distance service and maintenance, postage, paper, toner, discs, and other small office equipment such as staplers and tape, and newspaper subscriptions for customer and worker use
Marketing Cost Pool	14,000.00	classified ads, signs, displays, cable, radio, etc.
Miscellaneous Expenses Cost Pool	27,063.08	Expenses for site improvement, e.g. physical site improvement, technical improvements, ADA upgrades, plus moving, and mature services added value, etc.
Total One Stop Center Cost Pools	503,834.08	

Some costs are estimated and will be reconciled quarterly and based on actual expenditures.
Documentation for above costs available through Hamilton County Job and Family Services

Partner	ODJFS	WDA / City & County	HCJFS	CPS, GO	CS, GO	ORSC	Mature Services	CAA	CMHA	Job Corps
Partner Programs	Wag.-Peyser, UC, TAA, NAFTA, Vets E&T, Re-employment Services	WIA	OWF	ABLE	Post-Secondary Voc Ed	Rehab Services	Senior Employ	CSBG	HUD E&T	Job Corps
Program Funding Sources	Title III & I	Title I	TANF	Title II	Perkins Act	Title IV	Title V	CSBGA	HUD E&T	DOL
Total Staff at One Stop	15	30	2	0.5	0.5	1	0.5	1.5	0.5	2
Total annual Staff hours investment	31,200	62,400	4,160	1,040	1,040	2,080	1,040	3,120	1,040	4,160
Greeter		3						1.5		
Initial Job Seeker Services		5	1						0.5	1
Career Counselors	4	2								1
General Testing		1								
Training Specialist		1			0.5					
Workshops	0.5		1	0.5		1				
Business Developers	2 or 3	3.5					0.5			

One-Stop System - Shared Services	FTE	**Description of One Stop Center FTE Positions**
Greeter	4 FTE	"What brings you here today" Short orientation. Video Tape Presentation. Print Version (Brochure of Services) Tour Resource Room - Job Postings, Computer Lab, reference books, labor market information, copier, fax, telephone, etc.
Initial Job Seeker Services	6 FTE	Staff that will handle intake, initial assessments, beginning of Individual Work Plan, orientation, 11 item application, initial eligibility standards and referral to Partners for follow -up services.
Workshop Facilitator	1 FTE	One Stop Workshops
Career Counselors	6 FTE	Well versed on LMI and will work closely with job Developers. Placement Assistance, Individual Career Counseling. Detailed Plan. Knowledge of prerequisites for training.
Training Specialist	1 FTE	Direct Training: TAA, Career and Technical Training. Assist in funding applications. Understands all partner training and funding options.
Business Services	6 FTE	See Business Services Flow Chart.
Total Direct Shared Center Services	24 FTE	

Allocation Methodology The One-Stop System partners have agreed upon the following methodology for determining proportionate shares for shared cost items.

Partner	ODJFS	WDA / City & County	HCJFS	CPS, GO	CS, GO	ORSC	Mature Services	CAA	CMHA	Job Corps	Total
# of FTE equivalent	15.0	30.0	2.0	0.5	0.5	1.0	0.5	1.5	0.5	2.0	53.5
% of overall FTE equivalent	28.04%	56.07%	3.74%	0.93%	0.93%	1.87%	0.93%	2.80%	0.93%	3.74%	100.00%
Partner share of costs	$141,262	$282,523	$18,835	$4,709	$4,709	$9,417	$4,709	$14,126	$4,709	$18,835	$503,833
Cash Resources	$141,262	$282,523	$18,835	$4,709	$4,709	$9,417	$2,354	$14,126	$0	$18,835	$496,770
Other Resources	0	0	0	0	0	0	$2,354	0	$4,709	0	$7,064
											$503,834

* CMHA will provide resource sharing of moving services

* Mature Services will provide resource sharing of a service to be agreed upon.